

# BUSINESS WEEK

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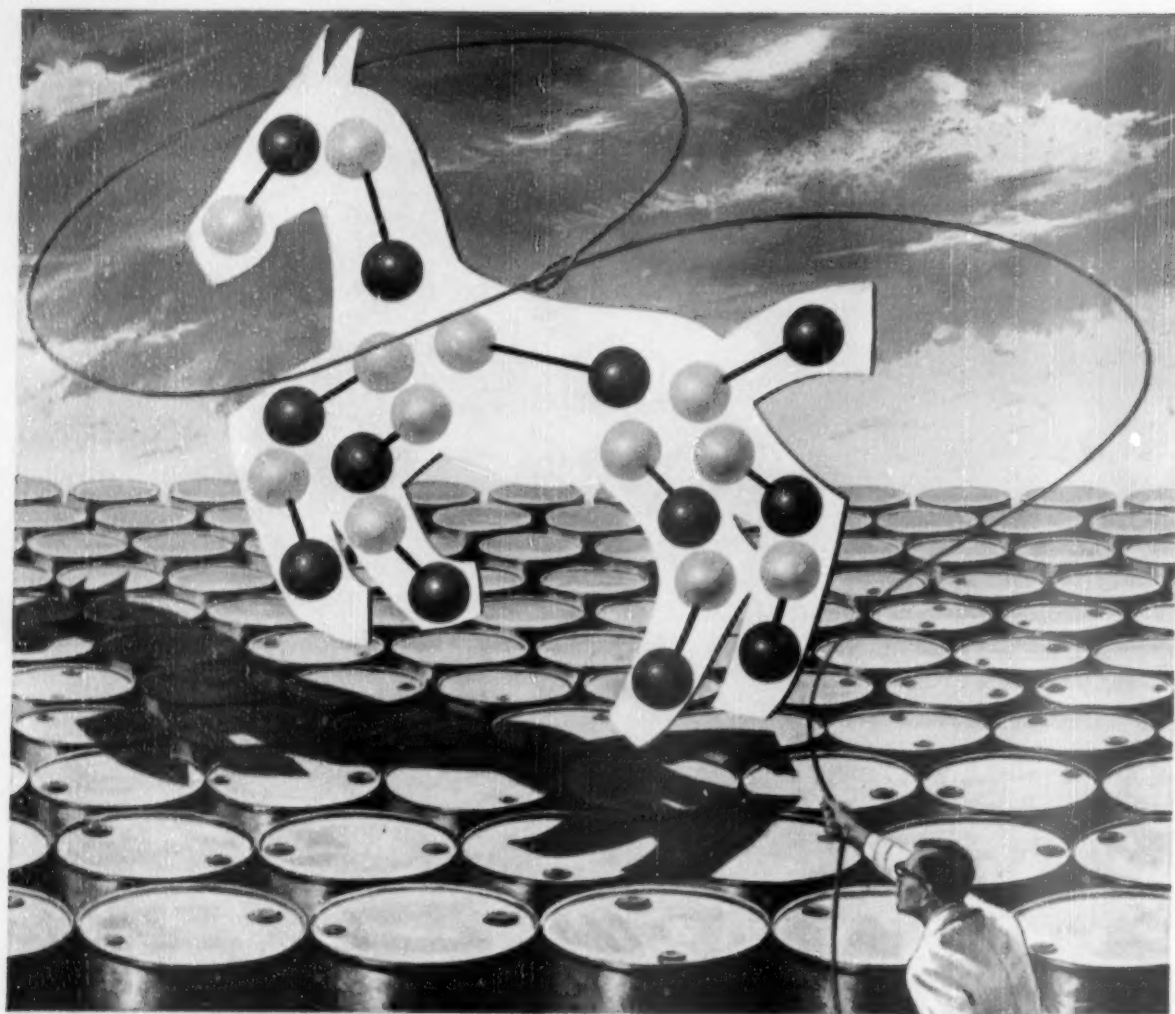


Raytheon's Charles Francis Adams, Jr.: Selling on the appliance frontier (page 114)

A MCGRAW-HILL PUBLICATION

MAY 15, 1954

E B POWER  
UNIVERSITY MICROFILMS  
313 N 1ST ST  
ANN ARBOR MICH  
C 8



## Lariat for wild molecules

**F**ILL A STEEL DRUM with insecticide, then add "Epi"—short for epichlorohydrin. You've solved a problem that has stumped the industry for years.

Today, most insecticides contain chlorine which, in storage, splits off as small amounts of acid. Through the tiniest pinhole in the container lining, the acid nibbles at the metal. Now the newly formed impurities of metal and acid hasten the breakdown of the entire drumful of insecticide.

"Epi" is the inhibitor that lassoes and hogs the wild acid molecules. Insecticides containing epichlorohydrin can be stored in steel drums for months and shipped thousands of miles, without a trace of spoilage.

The use of epichlorohydrin in insecticides is another example of Shell Chemical's partnership with industry and agriculture. Making chemicals from petroleum serve your needs is our constant purpose.

# Shell Chemical Corporation

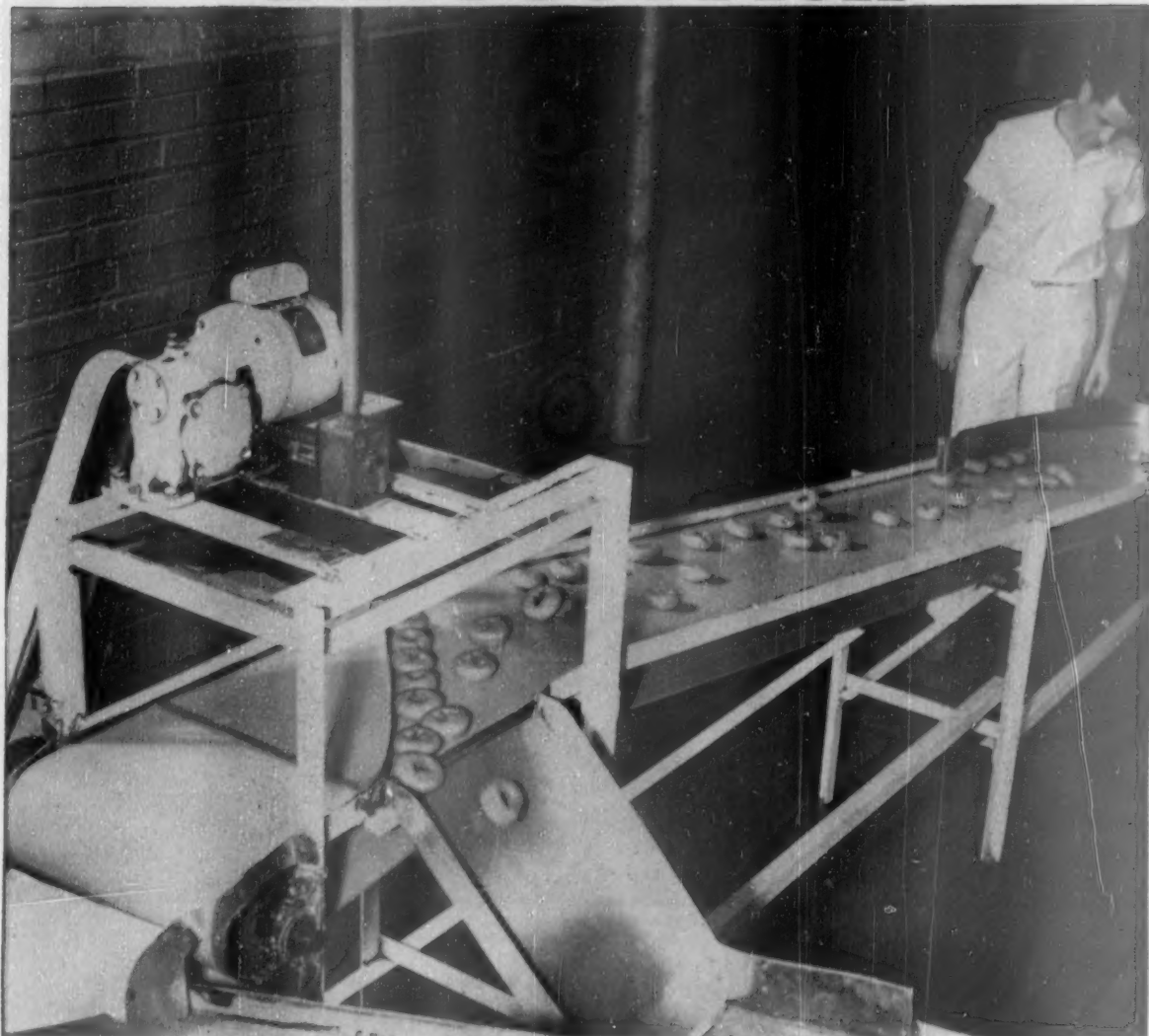
*Chemical Partner of Industry and Agriculture*

NEW YORK • DENVER • SAN FRANCISCO





# B.F. Goodrich



## March of doughnuts—on Koroseal

### *A typical example of B. F. Goodrich product improvement*

FRESH doughnuts used to be rushed to packing tables on a moving canvas belt. But grease clinging to the fresh doughnuts stained the belt, made it impossible to keep clean, soon ruined it.

Someone coated the belt with plastic, but the grease cracked it, seeped under the coating. Worse than ever.

It's a long jump from shower curtain to doughnut belt, but B. F. Goodrich engineers made the jump. They knew that shower curtains of Koroseal flexible material withstand hot water, soap and also oil that weakens rubber. Also they knew Koroseal has no taste

or odor, is easy to keep clean, lasts for years.

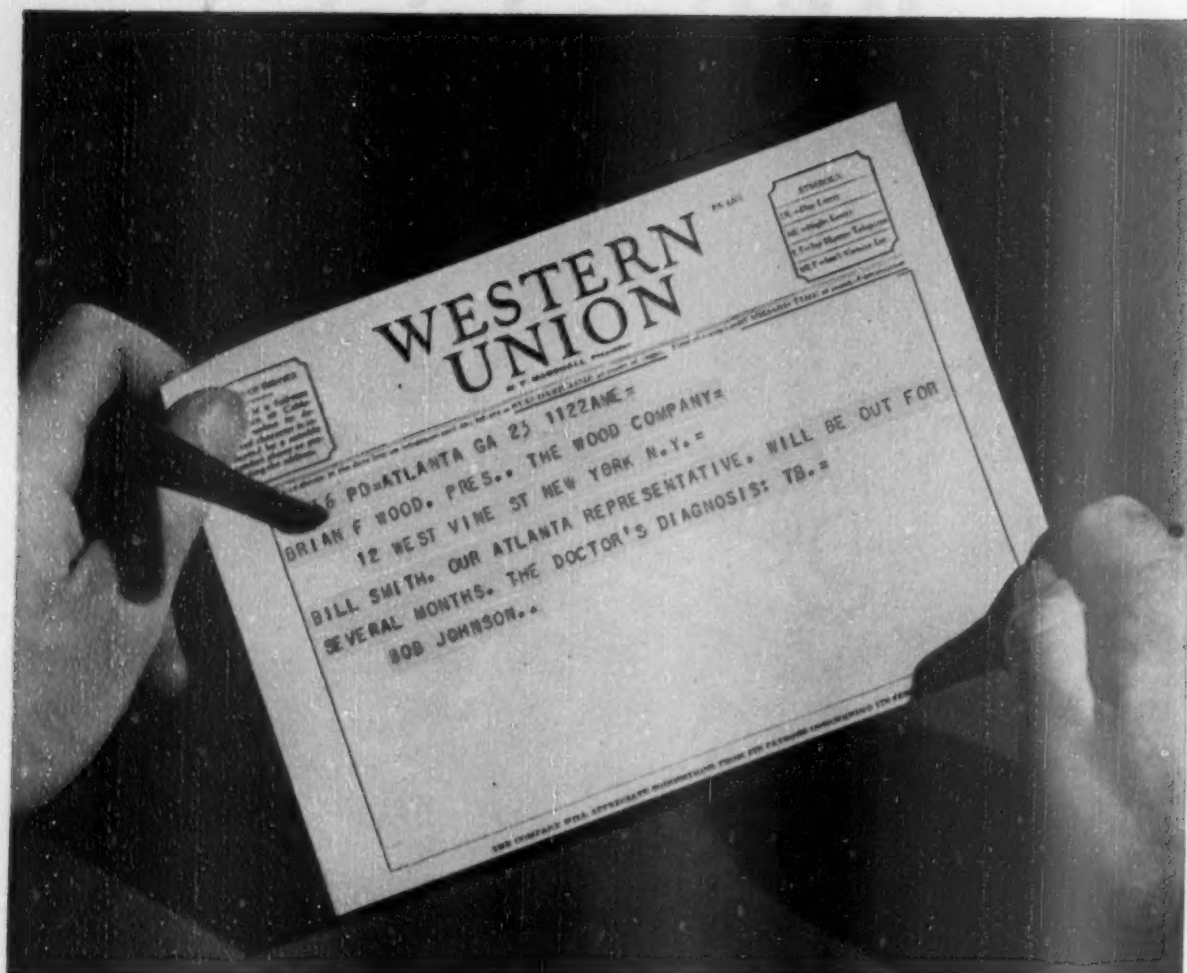
A belt was made of this special B. F. Goodrich material—and has already carried millions of doughnuts safely, sanitarily, and gives every evidence of lasting for millions more.

B. F. Goodrich Koroseal stands most acids as well as cooking fats—and stands hard wear, rough handling, heat, cold, sunlight, and just about everything else that ruins most materials; and it is *permanently* waterproof. There are scores of applications in industry where Koroseal belting, hose, tubing, tank

linings and gaskets are doing jobs better, for less money, than was ever possible before with any other material. Koroseal is a perfect example of B. F. Goodrich research which is constantly lengthening product life and so reducing costs to industry. To make sure you, too, have all these benefits, call your local B. F. Goodrich distributor. The B. F. Goodrich Company, Dept. M-235, Akron 18, Ohio.

Koroseal—T. M. Reg. U. S. Pat. Off.

**B.F. Goodrich**  
**INDUSTRIAL PRODUCTS**  
**DIVISION**



## HOW YOU CAN HELP YOUR EMPLOYEES MEET MAJOR MEDICAL EXPENSES

**Equitable offers management a way to lift the burden of ruinous medical debts from employees**

Heart...cancer...a bad accident. Think what can happen to your employees and their families!

A serious illness, a major accident can quickly pile up staggering medical bills. An employee, returning to work deep in medical debt, may be distracted, worried, perhaps even unable to keep his mind on his job.

**The problem management faces**  
Modern management—in cases like this—feels a basic sympathy. And a basic obligation.

Equitable offers an answer: three basic Group Major Medical Expense

Plans, any of which can be adapted to your company's needs.

This type of protection is vital, *whether or not* your employees are now covered by the usual medical and hospitalization plans.

### **How the Equitable Plans work**

These far-reaching Equitable Plans protect your employees against ruinous medical expenses. These expenses include: bills for doctors, surgeons, medicines, hospitals, professional nursing care and other items that can quickly wipe out an employee's life savings.

The cost of this insurance is amazingly low compared to the protection it gives you and your employees.

Your Equitable Representative can help you bring your employees—and yourself—peace of mind. Ask him about Individual Major Medical Expense Policies, available for you and your family, too.

THE  
**EQUITABLE**

LIFE ASSURANCE SOCIETY OF THE U.S.  
HOME OFFICE: 393 SEVENTH AVE., NEW YORK 1, N.Y.

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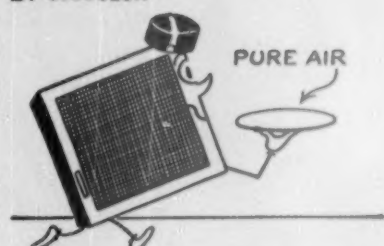
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# AIR-MAZING FACTS

BY O. SOGLOW



**ROOM SERVICE.** Air-Maze panel filters keep hotels cleaner and guests happier with plenty of clean, fresh air. All-metal cells are easy to clean, provide high efficiency, low pressure drop.



**LIGHT BEAM INVISIBLE IN VACUUM!** A flashlight beam seems to disappear while it passes through a vacuum because there's no dust to reflect it. For the same reason, if there were no dust in the air, no one would ever see a sunbeam.



**DUST SURRENDERS!** Damaging dust can't get into vacuum pumps equipped with Air-Maze closed-circuit Multimaze filters. Multimaze filters remove practically all abrasive dust and grit. They're easily serviced—of all-metal construction.

**WHETHER YOU BUILD OR USE** engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids—the chances are there is an Air-Maze filter engineered to serve you better. Representatives in all principal cities. For condensed product catalog, write Air-Maze Corporation, Department C, 25000 Miles Road, Cleveland 28, Ohio.

# AIR-MAZE

The Filter Engineers

AIR FILTERS  
SILENCERS  
SPARK ARRESTERS

LIQUID FILTERS  
OIL SEPARATORS  
GREASE FILTERS

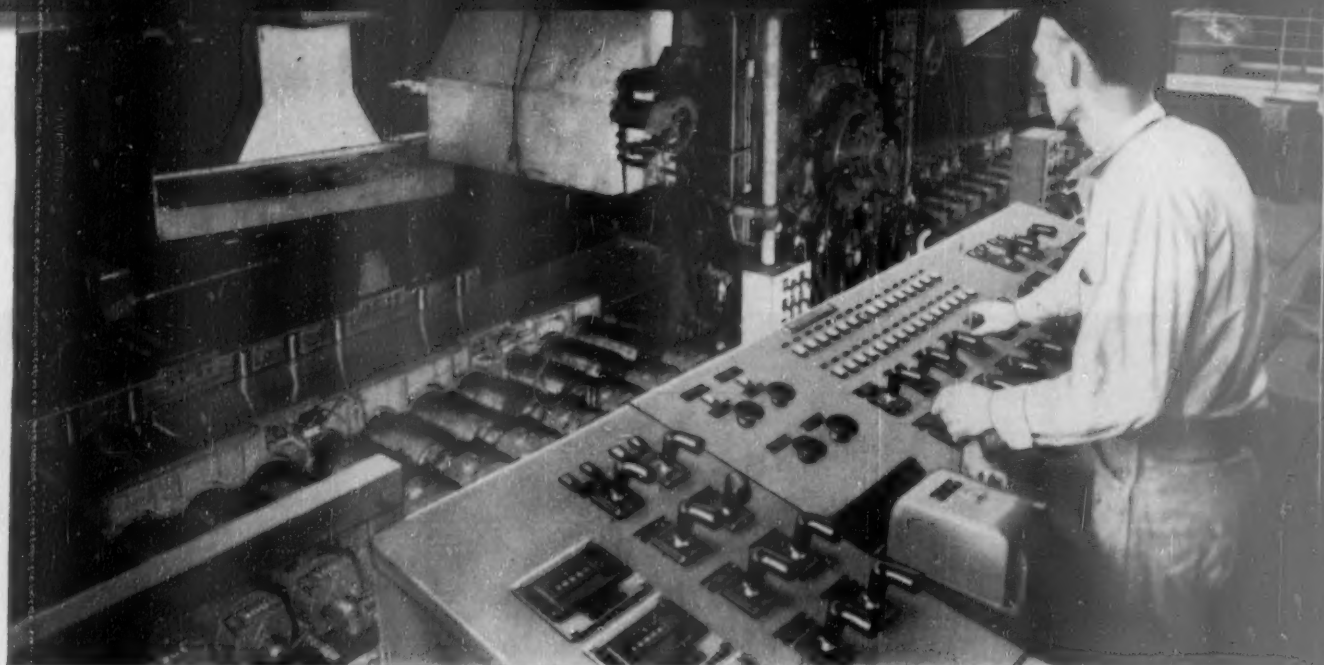




DOW

a new

**FIVE TONS OF "LIGHT WEIGHT"!** Known everywhere as the "world's lightest structural metal," it's something new indeed to see magnesium rolling ingot in five-ton lengths being lowered away to huge saws in rooms beneath the earth—where shorter ingots can be prepared for rolling in Dow's new coil mill.

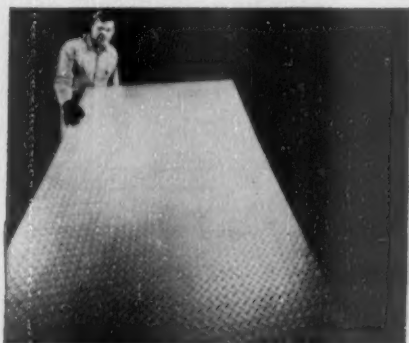


*Operator's touch controls slab movement through 84" rolls.*

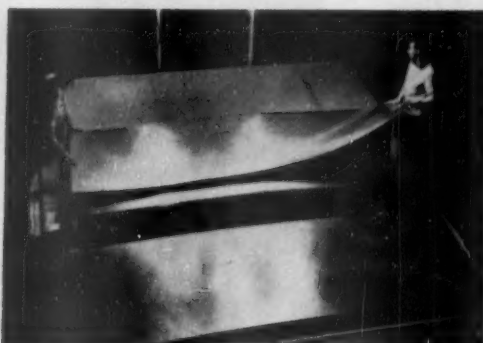
# look at Magnesium!

**UP TO 25%  
PRICE REDUCTION  
ON PLATE & SHEET**

**Now Available!** Tremendous new Dow facilities, now in operation, are geared to supply large quantities of magnesium plate, sheet and extrusions—in many new sizes, shapes and forms. Years of experience with magnesium were combined with newest *volume production techniques* to create the world's first 84-inch coil mill for rolling magnesium. If you are a designer, engineer or manufacturer—anxious to cut costs and improve products—it's time to take a new look at strong, lightweight magnesium! Call the nearest Dow office or write today for information—THE DOW CHEMICAL COMPANY, Magnesium Sales Department, Midland, Michigan.



**MAGNESIUM PLATE**—Light, strong magnesium tread plate—lengths to 16 feet, widths to 6 feet, thickness to 2 inches.



**MAGNESIUM SHEET**—New production facilities and rigid inspection insure top quality magnesium products.



**MAGNESIUM COIL**—Note size of coil, illustrates new availability in greater widths and lengths.

*you can depend on DOW MAGNESIUM*



**Westinghouse Announces Another New**

# **NEW TRAFFIC SENTINEL**





**Development for Automatic Elevators**

# **CUTS WAITING TIME**

## **Invisible Ray Controls Door Closing . . . System Retains All Safety Features**

Now Westinghouse presents another milestone in modern, operatorless, heavy-traffic elevating—*New Westinghouse Traffic Sentinel*. Combined with Westinghouse SAF-T-EDGE Doors (which assure complete protection) this intriguing new device speeds overall round trip time . . . eliminates unnecessary delays at intermediate floor stops. It vastly improves Operatorless Selectomatic service—the system that cuts operating costs up to \$7,000 per car a year.

### **Here's how TRAFFIC SENTINEL works—**

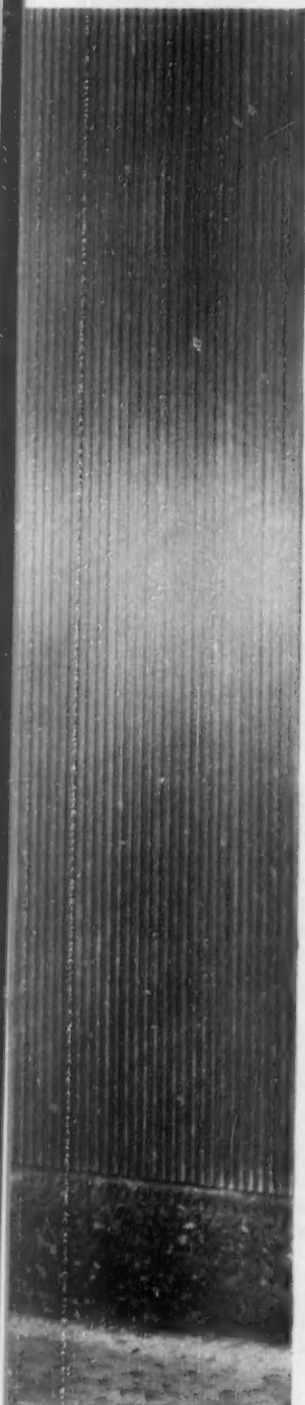
*Normally*, doors remain open for a predetermined time—regardless of how few people enter or leave the car. During light traffic periods, this door-open time is wasted. With new TRAFFIC SENTINEL, an invisible ray is broken by people entering or leaving the car. The ray automatically adjusts the door-open time according to the number of people moving in and out of cars at intermediate floors. The lighter the traffic, the shorter the door-open time. During heavier traffic, Traffic Sentinel holds the doors open long enough to permit loading or unloading of the car. At the lobby, it allows ample time for a fully loaded car to empty. It combines complete safety with minimum door-operating time. To find out more about this Westinghouse first, call our nearest office—we're listed in the Yellow Pages.

## **Westinghouse Elevators**

PASSENGER AND FREIGHT ELEVATORS • ELECTRIC STAIRWAYS  
PROTECTIVE MAINTENANCE AND SERVICE

**YOU CAN BE SURE...IF IT'S Westinghouse**

J-98700



**STOP**  
*Easy does it*

WITH BORG-WARNER "FEATHER TOUCH" POWER BRAKES

Designed for Service Shop  
Installation on most  
'46 to '54 Model Cars

By now, most car owners are aware of the many advantages of power brakes. Smooth, instant response to light pedal pressure . . . quicker, shorter, surer stops . . . less strain, less fatigue, greater driver comfort.

But up until recently, power brakes were available only as factory installed optional equipment on certain makes of new cars. Now—thanks to Borg-Warner engineering—B-W "Feather Touch" Power Brakes can be installed in an hour or so on most '46 to '54 models of all popular makes of cars.

As with scores of other Borg-Warner products, this new unit is engineered out of deep experience with the automotive industry's high standard. It has a minimum of wearing parts, requires no lubrication, is unaffected by changes in climate. And it is the industry's smallest, most compact unit, low in price, dependable in performance.

Designed and built by B-W's Marvel-Schebler Products Division, the new "Feather Touch" Power Brake is another example of Borg-Warner's "design it better—make it better" tradition. One more in a long list of B-W contributions to the driving safety, comfort and pleasure of the motoring public.

B-W engineering makes it work  
B-W production makes it available

Almost every American benefits every day from the 185 products made by

**BORG-WARNER**



THESE UNITS FORM BORG-WARNER, Executive Offices, Chicago: ATKINS SAW • BORG & LECK  
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## READERS REPORT

### The Same Old D.T.s

Dear Sir:

BUSINESS WEEK's well-earned reputation for accurate reporting of facts has made it of great value to management people. . . . Our faith in the accuracy of your publication has been seriously shaken, however, by the article in the Personal Business section of the Apr. 10 issue (page 175) dealing with drinking by executives. The statement that "undiluted bourbon is considered too potent" particularly disturbs us.

It is clearly evident that intoxication is caused by a concentration of alcohol in the bloodstream. This at once makes ridiculous the "rules" indicated for the times when "you're in for a heavy-drinking party." The point in question is not the type of whiskey drunk—but the amount of alcohol consumed. What possible difference could it make whether the alcohol reaches the stomach in Scotch, rye, blended whiskey or bourbon?

By far the largest quantity of straight bourbon whiskey marketed today is 86 proof (43% alcohol), which is the exact proof of Scotch and most blended whiskies. There will be not the slightest difference in effect if equal amounts of 86 proof liquor are consumed, no matter what their names may be. . . .

Your admonition that "Martinis and Manhattans are mixed drinks" and "get you into trouble" is also questionable.

Since intoxication depends on assimilation of alcohol into the bloodstream, anything that might retard this process should help the drinker avoid intoxication. Food in the stomach tends to retard such assimilation.

Throughout the article, reference is made to "scientists" and "experts" without further identification, unless they are to be connected with The National Committee on Alcoholism which is also mentioned. As far as is known, no scientists (as such) are connected with this lay organization, which is primarily interested in directing attention to the fact that alcoholism is a disease and that treatment . . . should be provided in hospitals and through public health channels. . . . Their activities do not qualify them as "scientists." . . .

Let BUSINESS WEEK beware of off-hand treatment of such a dangerous subject. . . .

R. E. JOYCE

VICE PRESIDENT

NATIONAL DISTILLERS PRODUCTS CORP.  
NEW YORK, N. Y.

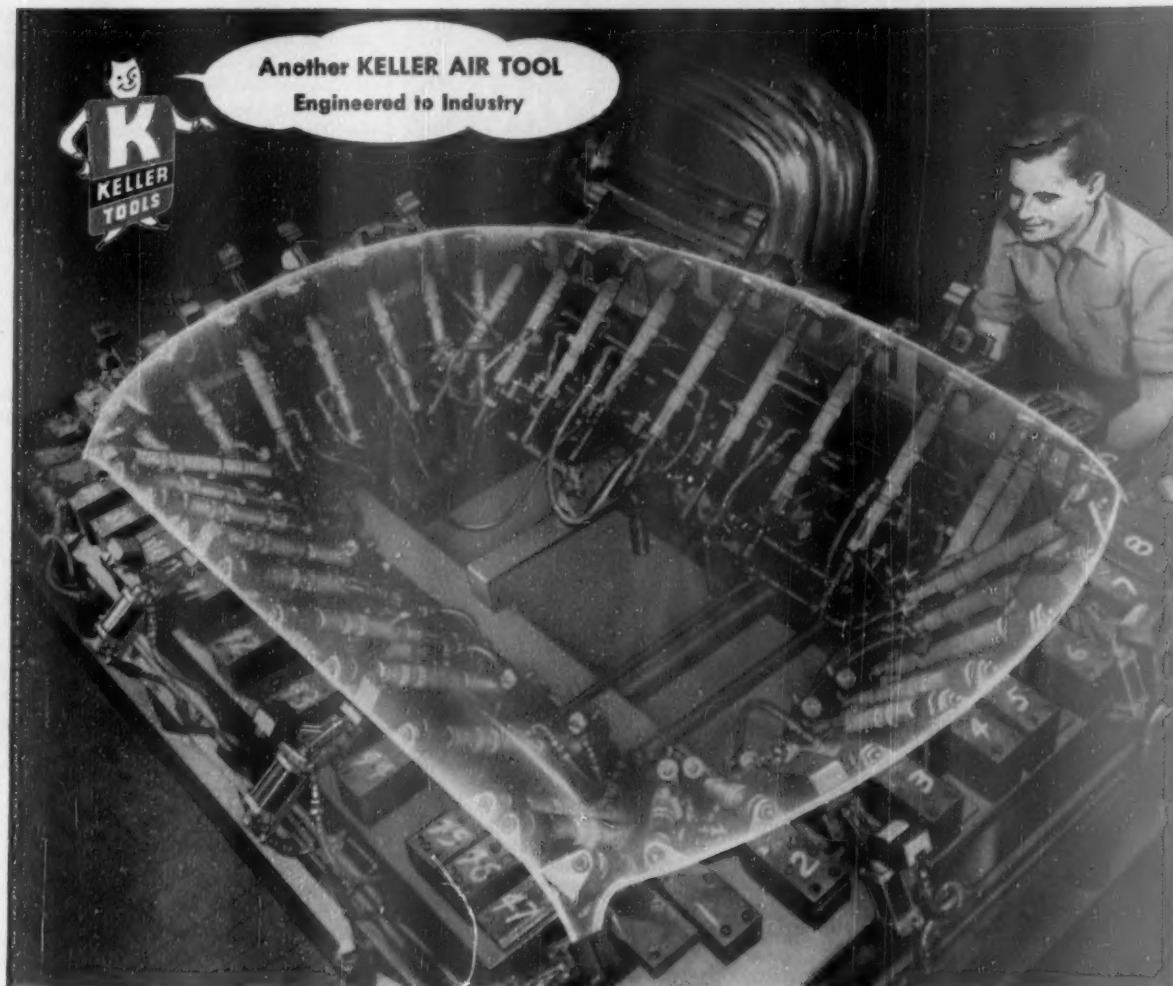
Dear Sir:

. . . In referring to experts on the

BUSINESS WEEK • May 15, 1954



Another KELLER AIR TOOL  
Engineered to Industry



## TOOL-UP COST... \$26,000 INSTEAD OF \$200,000

Sometimes the savings from Keller Airfeeddrills are quite dramatic. This was the case when an automobile manufacturer devised a fixture with Airfeeddrills for drilling the edges of sedan roofs.

With this fixture, two men have maintained a production rate of 67 roof panels per hour—more than one a minute—although they spend most of their time lifting panels on and off the fixture.

The illustration above shows a top panel in phantom, with the Airfeeddrills underneath, ready to drill. By pressing a single pushplate, all 47 Airfeeddrills are operated simultaneously—advancing, drilling, retracting, and shutting off automatically. Drilling takes only 5 or 10 seconds, and the cost per car and per hole is unbelievably small.

Even more dramatic is the saving on tool-up cost. The fix-

ture—including all design and engineering time, and the 47 Airfeeddrills—costs only about \$26,000. The tool engineers who designed it say the only other equipment capable of doing an equivalent job would be a machine tool costing in the neighborhood of \$200,000.

The Airfeeddrill is just one of many Keller Air Tools that industry uses to increase production, reduce costs, and make hard jobs easier.

## KELLER TOOL COMPANY

1301 FULTON STREET

GRAND HAVEN, MICHIGAN

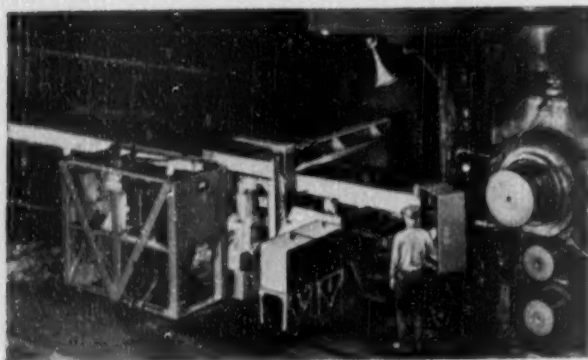


*Air Tools engineered to industry*



# INDUSTRY Lives by the

# INCH



With a white-hot ribbon of steel racing through the rolls at express train speed, a lot of scrap can be produced in an incredibly short time unless roll adjustment is under immediate and constant control.

Control involves continuous gaging just behind the rolls but since the

strip is white-hot, contact gages are impossible.

Thus about seven years ago Sheffield Research undertook the difficult problem of a non-contact gage. In due course the Measuray was perfected. With it, the thickness of the steel moving under the gaging head is accurately measured by indicating its resistance to X-ray penetration.

Today the Measuray is used not only in the rolling of steel, brass and aluminum, but also to control the thickness of many other products such as plastics, coated fabrics, film, rubber, etc. Another Sheffield contribution which is helping industry to live by the inch more profitably.

Without modern economical production equipment to assure interchangeability, both the mass production assembly line and today's replacement parts system would be impossible.

**Industry lives by the inch.**

Measuray Division, The Sheffield Corporation  
Dayton 1, Ohio, U.S.A.



# SHEFFIELD

subject of the effect of alcoholic drinks on the human system, the writer . . . evidently has missed part of the cardinal principles involved. The first . . . of course, is the quantity of alcohol assimilated by the bloodstream. . . . It is true that individual tolerances seem to run better on certain types of drinks than others, but there is no general classification to this. . . .

FRANK M. SHIPMAN  
VICE PRESIDENT-TECHNICAL DIRECTOR  
BROWN-FORMAN DISTILLERS CORP.  
LOUISVILLE, KY.

Dear Sir:

. . . The ounce of alcohol in a drink of bourbon is no more or less intoxicating than the ounce of alcohol in a drink of Scotch or a blend. . . .

Now, a "bottled-in-bond" bourbon must, by Act of Congress, be bottled at 100 proof, and thus . . . contains 6.6% more alcohol than a Scotch whiskey bottled at 86.8 proof. The "bottled-in-bond" drinker, therefore, if he desires to keep his alcohol intake to a parity with a Scotch drinker, simply pours or asks for a smaller drink. He doesn't have to fill the jigger to the top if he is pouring his own, nor need he feel sensitive or conspicuous in polite company about asking for a smaller portion, if he is being served. . . .

MILLARD COX  
COUNSEL  
KENTUCKY DISTILLERS' ASSOCIATION  
LOUISVILLE, KY.

• We are sorry that our statements on drinking can be challenged. We are pleased that our editors seem to know so little about the subject.

## Machine Tools; Used, New

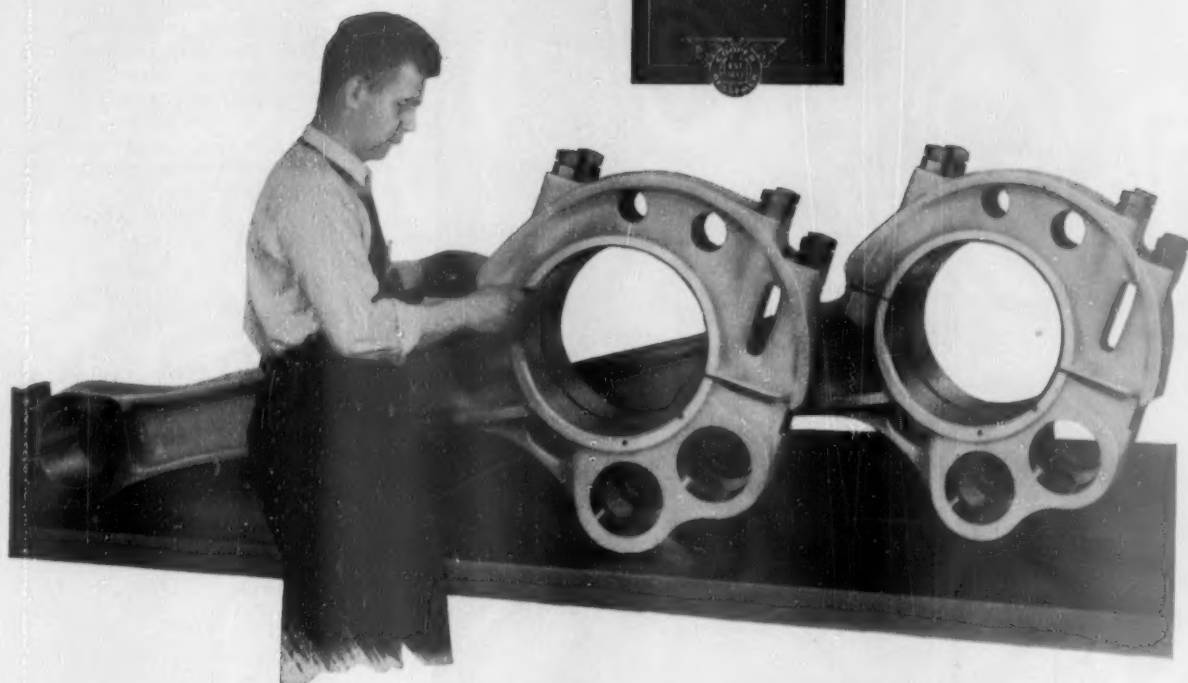
Dear Sir:

The report on the proposed tax law [BW—Mar.13'54,p96], to permit faster depreciation of "new" machine tools, certainly indicates that the framers of such a law do not know much about the machine tool industry or they would not have excluded "used" machine tools.

New machine tools are purchased largely by the large corporations, and it would be a safe bet that 80% of the new machine tools are purchased by less than 100 of these industries. The other 20% is spread over the small industries of which there are tens of thousands. These smaller industries also purchase about 80% to 85% of all the used machine tools, in fact only rarely do they buy new machines. Very few businesses had their beginnings buying new machinery, and that goes for the large corporations that now buy most of the new machines.

It is obvious that "used" machine

Another example  
of  
efficient power  
at lower cost



## Integrity is this "Con Man's" business!

**Y**OU'VE heard of con rods—short for connecting rods. A far cry from the kind in your auto engine, the huge ones above will go into the type of Cooper-Bessemer engine that powers our nation's biggest cross country gas pipe lines. And the "con man" checking them must make sure that they are finished to extremely close tolerance—precision perfect!

Maybe you wouldn't associate watch-like accuracy with a 100-ton giant of a machine. But you can bet your bottom dollar that every big Cooper-Bessemer is just as much a precision engine as the one in your car . . . if not more so.

That's one reason why Cooper-Bessemer engines in *all* kinds of heavy-duty service set records for years of virtually continuous operation

with an unmatched minimum of down time and maintenance expense. It pays off mightily well for Cooper-Bessemer customers.

If you have a stake in heavy-duty power, be sure to check on modern Cooper-Bessemer . . . and find out about the *new* things being done by one of America's oldest engine builders.



New York • Chicago • Washington • San Francisco • Los Angeles •  
San Diego • Houston • Dallas • Odessa • Tampa • Groggton •  
Seattle • Tulsa • St. Louis • Gloucester • New Orleans • Shreveport  
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DIESELS • GAS ENGINES • GAS-DIESELS • ENGINE-DRIVEN AND MOTOR-DRIVEN COMPRESSORS • HIGH PRESSURE LIQUID PUMPS

H-P-M FASTRAVERSE  
Single Action Press with or  
without Hydraulic Cushion



# H-P-Ms for DIE STRAIGHTENING

COINING • SIZING • EMBOSsing

• Versatile, rapid cycling, all-hydraulic  
H-P-M single action presses are ideally suited  
to a wide range of mass production jobs —  
straightening castings, coining,  
sizing, embossing, forming, drawing,  
assembling and many more. Automatic  
controls insure uniform results. Talk to an  
H-P-M engineer today about  
cutting your production costs!



THE HYDRAULIC PRESS MFG. COMPANY  
MOUNT GILEAD, OHIO, U.S.A.

## 1000 MARION ROAD

A FEW OF THE HUNDREDS OF USERS OF  
H-P-M ALL-HYDRAULIC FASTRAVERSE PRESSES  
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Boring • Briggs • Buell Wheel • Buck • Douglas  
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Kyan • Thompson Products • U. S. Rubber • Timken

tools are purchased by thousands of small, struggling businesses that need tax relief more urgently than a few hundred corporations that buy the bulk of the "new" machine tools, and to exclude "used" machine tools from the accelerated tax depreciation plan is a discrimination against small business.

This Administration has been accused of being in favor of "big business," and while this may not be true, the tax bill under consideration would favor no one but big business. Every small business that uses machine tools should write or wire their Congressman, to insist that "used" machine tools be given the same consideration as "new" machine tools.

W. E. HAMILTON

W. E. HAMILTON MACHINERY CO.  
EVANSTON, ILL.

## A Real Profit Earner

Dear Sir:

In reading through the color-highlighted 1953's Biggest Profit Earners [BW—Apr. 24 '54, p77], I was naturally surprised not to find the American Gas and Electric Co. . . . even mentioned among utilities.

What can I do to persuade you . . . that the American Gas and Electric Co. System is an integrated power system and, therefore, a utility system?

PHILIP SPORN

PRESIDENT  
AMERICAN GAS AND ELECTRIC CO.  
NEW YORK, N. Y.

• Our humblest apologies. Your very impressive record of nearly \$31-million in earnings last year (an increase of some \$3,600,000 over 1952) certainly should have put your company in the list.

## Dogs and Concrete

Dear Sir:

May I ask you to cite your authority for advising dog owners to floor their exercise areas with concrete? [BW—May 1 '54, p143]. I have always understood that concrete was very bad for a dog's feet. Ideally, the area should be cobbled, because the unevenness of the surface strengthens the bone and muscle structure of the pads. If cobbles are too expensive, plain earth, well drained, would be better than a hard flat surface. Concrete may be all right for police dogs but not for the rest of our four-footed, flat-footed friends.

J. L. TROY

BOSTON, MASS.

• Our Authority, "The Complete Dog Book," official publication of American Kennel Club—and dog breeders' Bible—specifically recommends concrete or well-laid tile.





## Case of the disappearing brand names

Imagine how you'd feel if your brand name was stripped from your product right at the point of sale. Unlikely as it may sound, this actually happens in the case of whole hams.

That's because retailers generally cut the whole hams into smaller units for today's self-service selling. Into the trash barrel goes the original wrap — and priceless brand identity with it, virtually nullifying costly advertising expenditures.

A Dewey and Almy development has solved the problem for an increasing number of meat packers. Our CRYOVAC vacuum-sealed packaging process now enables packers to

market *half-hams* and *slices* in handsomely imprinted transparent bags that not only promote brand identity, but also preserve full, delicious flavor.

This is another example of the way that Dewey and Almy's widely diversified processes, products or ingredients are bringing benefits to almost every industry. Check the partial listing of our products shown below. Perhaps among them is one that can help solve one of *your* problems as surely as CRYOVAC packaging solves the merchandising problems of smoked meat and poultry packers.



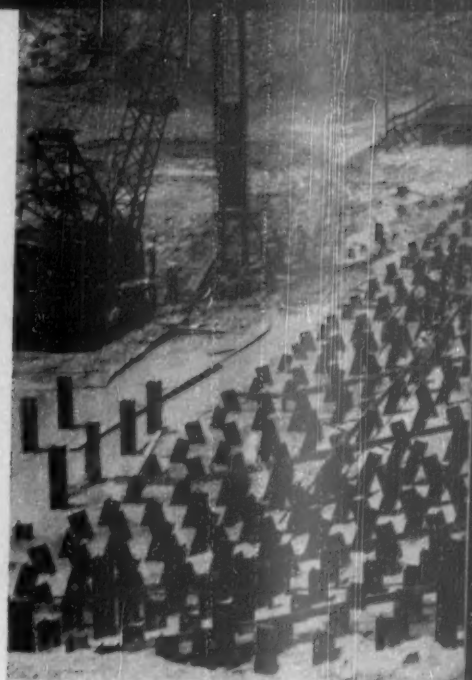
**DEWEY and ALMY**  
**Chemical Company**

Cambridge 40, Massachusetts

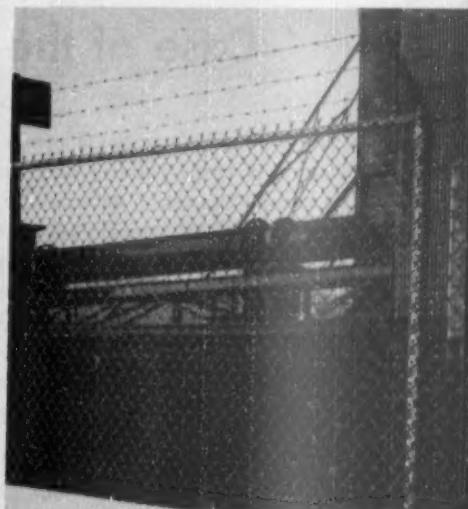
Offices or Subsidiaries in principal U. S. cities and in Buenos Aires, Copenhagen, London, Melbourne, Milan, Montevideo, Montreal, Naples, Paris, São Paulo, Tokyo.  
 Shoe Materials • Sealing Compounds for Food Cans • Adhesives • CRYOVAC bags for Food Packaging • Soda Lime • Flowed-in Gasket Compounds  
 Battery Separators • Chemical Products for the Construction Industry • Meteorological Balloons • Textile Printing Products • Organic Chemicals

# Only STEEL can do so many jobs

**Famous Finger of Metal** and stone pointing 1472 feet into the sky is The Empire State Building in New York City. This mightiest of buildings makes liberal use of Stainless Steel for both decorative and utilitarian purposes: in vertical strips beside the windows, in bands around the tower, in the two-entrance corridors. "Maintenance?" said the assistant operating manager when asked about the exterior Stainless Steel. "What maintenance? We haven't touched the stainless steel since it was installed. And the condition of the steel is as good as ever." Not a bad record after more than 20 years.



**Dragon's Teeth Sprouting?** No, these are steel bearing piles in the foundation of a dam spillway. When the dam is finished, you'll never know the steel piles are there for they will be covered. But they'll be working just the same, for strength and safety, as enduring steel so often works unseen in buildings, highways, pipelines and power plants.



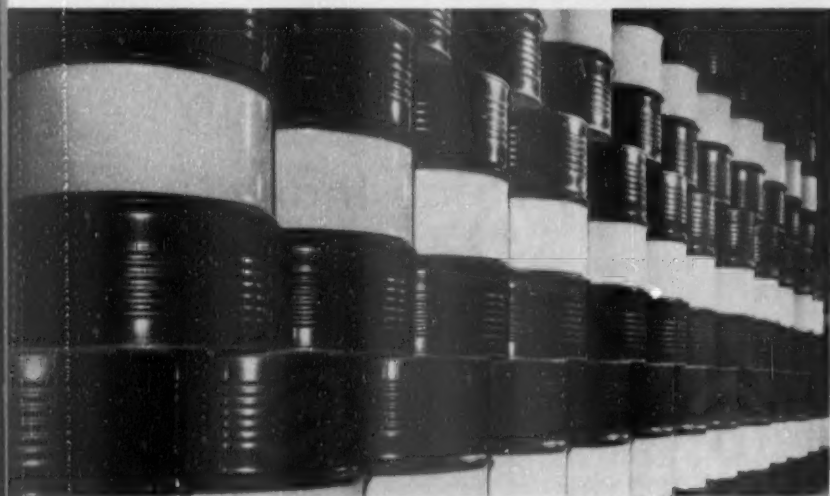
**This "Watchman" Never Sleeps.** A Cyclone Fence is always on duty, day and night, at every vital point around your plant. It is sturdy, strong, long-lasting... protects your property from vandalism, burglary and casual trespassers.

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AMERICA  
DIL WELL

so well



**Drums That Are Hard to Beat.** Strong, leakproof, tough steel drums like these, made by U.S. Steel, are unsurpassed as containers for shipping almost anything anywhere. You'll find them traveling all over the world, bearing gasoline, paint, chemicals, foods, scores of other commodities. Only steel can do so many jobs so well.

# UNITED STATES STEEL

**Power Line Under the Ocean.** Here you see the shore anchorage of 4 miles of submarine cable being laid on the bottom of the Gulf of Mexico to bring power out to sea, where off-shore drilling rigs search for oil. The special non-leased Amarine Cable transmits 2500 horsepower to the drilling platforms, carries 3 pairs of telephone wires for rig-to-shore communication. The cable was designed and made by U.S. Steel.

**SEE THE UNITED STATES STEEL HOUR.** It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.



This trade-mark is your guide to quality steel

For further information on any product mentioned in this advertisement, write United States Steel, 625 William Penn Place, Pittsburgh, Pa.

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OIL WELL SUPPLY..TENNESSEE COAL & IRON..UNITED STATES STEEL PRODUCTS..UNITED STATES STEEL SUPPLY..Divisions of UNITED STATES STEEL CORPORATION, PITTSBURGH  
UNITED STATES STEEL HOMES, INC. • UNION SUPPLY COMPANY • UNITED STATES STEEL EXPORT COMPANY • UNIVERSAL ATLAS CEMENT COMPANY 4-820





## **Eye Patch** Reminder:

Workers' Eyes Are Still Costly  
on the "Commodity Price Index"  
This Year!

The commodity price index may show a declining curve but the cost of industrial eye accidents remains as high as ever. The *hidden costs*\* may not appear on the books but the direct costs alone in compensation, higher insurance rates and medical expense can make a high break-even point even higher. They justify *your action!*

Eye injuries cost more than \$5.00 *per employed* worker, and more than 98% of the injuries are prevented when *exposed* workers wear safety goggles — at an average cost of \$2.30. Where else in industry can you find an equipment investment that pays off as handsomely?

Ask an AO Safety Representative what other companies in and out of your industry have saved with an AO Program. Or write American Optical Company, 415 Vision Park, Southbridge, Massachusetts, for booklet, "Improved Industrial Vision." Do it today.

*\*Hidden costs include:* Lost man hours • Idle time of worker's machine • Lowered efficiency because of substitute workers (Green men don't have the skill) • Cost of increased rejects.



Keep your workers  
in the Safety Zone  
with American Opti-  
cal Safety Equipment.

# BUSINESS OUTLOOK

BUSINESS WEEK

MAY 15, 1954



New agitation for more arms is reshaping the business curve (page 25).

Perhaps these plans for more munitions will never get an official blessing. They might quite possibly come a cropper in an economy-minded, tax-cutting, election-conscious Congress.

Yet the realities of the international situation can force a shift.

Even a 1-to-3 or a 1-to-5 chance that the government will call a halt on its retrenchment (or even boost outlays) must have a loosening effect on both business and consumer purse strings.

Mere talk of new spending for arms—for things made of metal—may spur (1) inventory accumulation, and (2) consumer buying of durables.

And, with this hint of price rises, there's a buying incentive.

Geneva, stalemate, arms, inflation—that's an unhappy picture for business and the public alike, but one too ominous to ignore.

We suggested, three weeks ago, that you watch the political seers more than the economic oracles (BW—Apr.24'54,p17). This may complicate planning, but it's the only down-to-earth course.

Many observers have felt for a good while that there would be no real upturn in business (and maybe not even a "plateau") until the decline in government spending halts. This, then, could be the turn.

But don't ignore the dangers involved.

If the arms program is expanded, there's inflation to fear; if it isn't, any business spurt now could turn very sour later.

—•—

Some improvement already can be noted—however much of a flash in the pan it might be—in the business figures.

The gains, in themselves, are small. But they are fairly general.

Put together, they have tilted Business Week's Index about 3 points since late in April (page 21).

—•—

Construction seems to be fortifying its right to the limelight.

Margins of gain over a year ago (measured in dollar value of work put in place) have stopped shrinking. The year-to-year gain of 1.1% in March was the poorest; this widened to 1.4% in April.

And the bigger gains should continue for some time. The value of new contracts awarded in recent weeks has been sharply higher.

—•—

Auto output continues to make a remarkably strong showing—even if the favorable figures are limited to a few makes and models.

Production last week was about 126,000, best since last August.

This accented a bit of good, though slightly out-of-date, news: Registrations in March were very little less than the year before (a welcome change after the lag experienced in earlier months).

Worriers now wonder if maybe the auto people have been pushing too

# BUSINESS OUTLOOK (Continued)

BUSINESS WEEK  
MAY 15, 1954

hard. They fear the market may be glutted long before July 4—traditional date for tallying the results of the big sales session.

Those who stick to the dim view on auto prospects (or are, perhaps, stuck with it) fret over a greater-than-seasonal letdown after midsummer. This, they insist, might be as bad or worse than last year's.

They have but one shred of evidence up to now: the dip in used-car prices in the last two weeks, reversing the strong earlier trend.

## Good news and bad seem just about to cancel out in steel.

Thus it was reported at midweek that Republic Steel would add two open hearths in the Youngstown district next week—but that Youngstown Sheet & Tube would take off one open hearth, suspend bessemer operations.

New orders are more numerous—but not big enough to amount to much.

And so it goes—while operations, for the industry as a whole, bobble along at about 68% of rated capacity.

Those figures on unemployment and retail trade (pages 30-31) that came out over the weekend look pretty good if you don't probe too closely.

However, retailing results shrink in the light of the late Easter.

And the decline in unemployment fails to correct the most distressing trend: the steady deterioration in factory employment.

April's gain in retail volume this year really means nothing.

Easter fell at mid-April this year, giving that month the two big pre-holiday weeks. In 1953, the fat fortnight fell in March.

Thus, to get a true perspective, you have to regard March-April results as a unit: Sales for the two months this year were \$27½-billion, down more than \$350-million from a year ago.

Farming and most other nonmanufacturing lines added to employment between March and April. That accounts for the dip in unemployment.

From the standpoint of those looking for an upturn in industrial production, however, the figures were a disappointment. Factory jobs dropped more than 250,000 from March to April.

Some decline is expected for the period—but not this much. Factory employment dipped only about 60,000 in each of the preceding two years.

Factories turning out durable goods add to employment between March and April more often than not. (This was true in both 1952 and 1953, with dips in nondurable plants more than offsetting the gains in durables.)

Last month, however, jobs fell 150,000 in durables alone.

Some of the sting is taken out of the drop in factory jobs by a new substantial revision of the figures. The result doesn't create any jobs, nor does it bolster purchasing power in any way; yet it makes the year-to-year drop look like 1-million instead of 1¼-million.





STAINLESS STEEL FOR KITCHENS

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# Steel

High quality stainless sheet  
and strip steel . . . for the product  
you make today and the  
product you plan for tomorrow.

**McLOUTH STEEL CORPORATION**  
DETROIT, MICHIGAN

*Manufacturers of Stainless and Carbon Steels*

*Scotland's Prince of Whiskies* The noblest whisky ever  
to leave the shores of Scotland, 12 year old Chivas Regal is the pride of a House  
founded 153 years ago: Chivas Brothers Ltd. of Aberdeen.



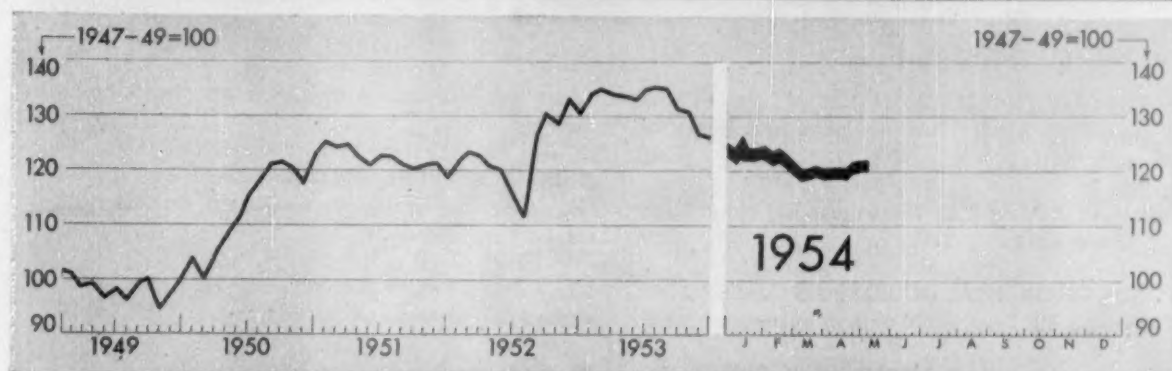
*Spangled sitting room looking into the King's bedchamber in a stately old castle*

**CHIVAS**  **REGAL**  
12 YEAR OLD SCOTCH WHISKY

CHIVAS BROTHERS LTD., Aberdeen, Scotland. Established 1801.  
By Appointment Purveyors of Provisions and Scotch Whisky to the late King George VI.

BLENDING SCOTCH WHISKY • 86 PROOF • CHIVAS BROTHERS IMPORT CORP. • NEW YORK, N. Y.

# FIGURES OF THE WEEK



**Business Week Index (above)** . . . . . \*123.3 †123.4 120.8 133.1 91.6

## PRODUCTION

Steel ingot production (thousands of tons).....	1,636	†1,654	1,622	2,262	1,281
Production of automobiles and trucks.....	155,909	†159,206	152,074	179,621	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$55,295	\$53,733	\$51,415	\$49,831	\$17,083
Electric power output (millions of kilowatt-hours).....	8,438	8,390	8,396	7,897	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,422	6,622	6,568	6,335	4,751
Bituminous coal production (daily average, thousands of tons).....	1,113	1,123	1,113	1,462	1,745
Paperboard Production (tons).....	237,514	†230,314	242,573	240,205	167,269

## TRADE

Carloadings: manufacturers, misc., and L.C.I. (daily av., thousands of cars).....	67	67	67	78	82
Carloadings: raw materials (daily av., thousands of cars).....	41	38	33	52	53
Department store sales (change from same week of preceding year).....	-1%	†-3%	-13%	+3%	+30%
Business failures (Dun and Bradstreet, number).....	206	234	246	165	22

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	434.1	436.7	436.2	416.6	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100).....	86.5	86.7	85.4	86.8	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100).....	101.3	101.9	102.8	88.9	††75.4
Print cloth (spot and nearby, yd.).....	19.1¢	19.0¢	19.8¢	21.0¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100).....	140.8	140.8	140.9	133.6	††76.4
Scrap steel composite (Iron Age, ton).....	\$27.58	\$27.25	\$25.17	\$38.66	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).....	30.000¢	30.000¢	30.000¢	29.970¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.45	\$2.45	\$2.45	\$2.38	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	34.47¢	34.38¢	34.01¢	33.30¢	30.56¢
Wool tops (Boston, lb.).....	\$2.12	\$2.12	\$2.12	\$2.10	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's).....	227.1	224.3	219.2	197.3	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.47%	3.47%	3.46%	3.76%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1½-1½%	1½-1½%	2%	2½%	1-1%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	54,047	54,108	52,376	53,352	††45,820
Total loans and investments, reporting member banks.....	79,893	79,118	79,078	76,238	††72,036
Commercial and agricultural loans, reporting member banks.....	22,145	22,183	22,714	23,139	††9,299
U. S. gov't guaranteed obligations held, reporting member banks.....	32,377	32,160	31,518	29,185	††49,879
Total federal reserve credit outstanding.....	25,274	25,383	25,357	25,443	23,883

## MONTHLY FIGURES OF THE WEEK

	Latest Month	Preceding Month	Year Ago	1946 Average
Average weekly earnings in manufacturing.....April.....	\$70.20	\$70.71	\$71.40	\$43.82
Employment (in millions).....April.....	x60.6	x60.1	61.2	55.2
Unemployment (in millions).....April.....	x3.5	x3.7	1.6	2.3
Retail sales (seasonally adjusted, in millions).....April.....	\$14,285	\$13,813	\$14,280	\$8,541
Wholesale prices (U. S. BLS, 1947-49 = 100).....April.....	111.1	110.5	109.4	78.7
Housing starts (in thousands).....April.....	110.0	97.0	111.4	55.9
Exports (in millions).....March.....	\$1,122	\$1,181	\$1,391	\$812
Imports (in millions).....March.....	\$858	\$809	\$1,005	\$412

\* Preliminary, week ended May 8, 1954.

†† Estimate.  
† Revised.

x New series. Not comparable with previous data.  
# Date for "Latest Week" on each series on request.



# in BUSINESS this WEEK...

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**SEAWAY AT LAST.** By 1960, some big changes on the Great Lakes. ....p. 26

**FORD CONTINENTAL DOUBLES AS CLASSROOM.** For young Bill Ford, a \$10-million education. ....p. 27

**GREENBRIER SELLS ITSELF—AND THE C&O—**

When the new season opened, most people came by train. ....p. 28

**INDICATORS ARE CHEERFUL—AT A QUICK GLANCE.** The upturn isn't vigorous, but it's right on time. ....p. 30

**NEXT BIG MERGER BREWS.** Olin and Mathieson: A wedding of brass and drugs. ....p. 32

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**BUSINESS ABROAD PATTERN:** What Dienbienphu means to the U.S. ....p. 150

## COMMODITIES:

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## CRIME:

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**NEW SELL FOR THE LIBERAL ARTS.** At Yale, an old enthusiasm, but a new approach to learning. ....p. 78

**EDUCATIONAL TV CREEPS AHEAD.** After two slow years, a chance to boast a little. ....p. 92

## ENTERTAINMENT:

**AMUSEMENT PARKS UNVEIL THEIR WINTER'S WORK.** You don't just lock the gates on Labor Day. ....p. 182

## FINANCE:

**WALL STREET IS NOT IMPRESSED.**

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**PUTTING WALL STREET ON THE ROAD.** Merrill Lynch takes to the suburbs. ....in a bus. ....p. 46

**ROSY IN TOTAL, DRAB IN DETAIL.** Corporate working capital: still climbing, but not so fast. ....p. 48

## INDUSTRIES:

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## LABOR:

**WHEN T-H CHANGE CAME UP** they killed it with kindness. ....p. 158

**THE FIGURES THEY'LL BE BARGAINING OVER.** To unions, these are the most important. ....p. 160

**THE LABOR ANGLE:** Slichter speaks up again. ....p. 162

**CURBING LEFTISTS.** New NLRB move means trouble for pro-Red unions. ....p. 164

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**GETTING ALONG ON A LEAN DIET.** GE's Aircraft Gas Turbine Div. suffers over the big remaining headache in the jet engine business. ....p. 130

**CLINIC TIGHTENS FAMILY TIES.** The subsidiaries were glum at Sun Chemical. ....p. 136

## MARKETING:

**RAYTHEON: LEARNING NEW MARKETS FOR ELECTRONICS.** What do you do with a product that's too new to sell? (cover).....p. 114

**CONSUMERS STAY WARY.** They're paying off their debts—and the experts don't like it. ....p. 121

**FAIR OR UNFAIR TRADE: IT ALL DEPENDS WHERE YOU SIT.** Some would trace it back to the Sermon on the Mount. ....p. 122

**FTC CLEARS GENERAL FOODS.** It's a sample of the commission's new policy. ....p. 126

## THE MARKETS:

**TWO BULLS THAT BEAT AS ONE,** though they be oceans apart. ....p. 168

## PRODUCTION:

**FOR PRINTING: A STEP BEYOND THE LINOTYPE?** After 50 years of coasting, things are beginning to happen. ....p. 66

**THE PRODUCTION PATTERN:** Doctors call the treatment "constructive medicine" ....p. 72

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**IDAHO ROAD TEST: WHAT TRUCKS DO TO A HIGHWAY.** In a couple of weeks, they'll come up with some new answers. ....p. 100

**ATTACK ON POWER SHORTAGES.** Five utilities mull a common problem. ....p. 106



Over 25,000 specimens have been exposed to salt atmospheres at Inco's Kure Beach corrosion test station.

## *There are men who know what the wild waves are saying...*

**T**HE sea's a killer ... of many metals.

Some it corrodes or rusts. Some it erodes, wears away. Some it destroys by eating up one of the alloying elements, leaving only a shell. Some it makes "allergic" to connecting metals so that corrosion is speeded up to hasten the destruction.

To study this killer in action, to see what can be learned from it about the causes of corrosion, now costing this country around six billion dollars a year, The International Nickel Company has made the ocean into a test tube.

At Block Island, Rhode Island.

And at Kure Beach, North Carolina ... in this gigantic test tube, Inco corrosion engineers study the effects of corrosive salt water on metals and other mate-

rials. Not only of salt water, but also of salt spray, salt air, water velocity, marine growths, methods of coupling!

Over the years, more than thirty, this continuing Inco study has produced a mass of valuable data on the behavior of metals under all sorts of salt water corrosion conditions.

This information, supplemented by research findings in many other fields ... welding, high temperature, petroleum, to mention only a few ... has helped International Nickel develop many new and improved alloys. It has also provided the basis for solving

practical corrosion problems as they appear.

If you have a metal corrosion problem, ask Inco if it has the "ways and means" of solving it. If it doesn't, a special series of tests can always be set up for you.

**Yours for the asking...** Draw on Inco's fund of useful information on the properties, treatment, fabrication and performance of alloys containing nickel.

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Today's successful salesman makes the most of his time—puts the most in every day.

That's where Long Distance telephone service is especially helpful.

It provides frequent contact with customers and prospects, between personal visits. It clears up questions. Closes orders. Helps to answer inquiries in minutes instead of days. And

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### Long Distance Doesn't Cost—It Pays

We have some specific suggestions for the profitable use of Long Distance in Sales, Purchasing, Administration, Traffic, Production, Engineering and Accounting. If you would like to discuss them, just call your Bell Telephone Business Office.

### **LONG DISTANCE RATES ARE LOW**

Here are some examples:

<b>Albany to Hartford .....</b>	<b>50¢</b>
<b>Baltimore to Norfolk .....</b>	<b>70¢</b>
<b>Cleveland to Grand Rapids .</b>	<b>85¢</b>
<b>Houston to New Orleans ...</b>	<b>\$1.05</b>
<b>New York to Seattle .....</b>	<b>\$2.50</b>

These are the daytime Station-to-Station rates for the first three minutes. They do not include the new, lower federal excise tax of 10%.

When you call, remember to  
Call by Number. It's faster.

**BELL TELEPHONE SYSTEM**





## New Fear: Too Much Recovery

● Eisenhower's economists thought the upturn was well-timed for the fall, would be just enough.

● But ideas about military needs for Southeast Asia are being revised. Defense spending may have to be boosted a long way.

● If that happens at the same time the civilian economy is rising again, the combined effect may be inflation—the thing the Administration abhors most.

● The next six months will tell.

The prospect of a quick arms buildup to check Communist expansion in Southeast Asia this week confronted President Eisenhower's businessman administrators with their toughest decision.

Their careful plans—first to check inflation, and then to check the business downturn—had reached the pay-off stage. They figured that their long-range plans, as expressed in the President's legislative program, were all the country needed to start another round of growth—probably in the autumn.

The Communist victories in Indo-China have changed that comfortable prophecy. There is now a real possibility that Eisenhower—after a round of conferences with his top military advisers—will order military spending stepped up.

Defense Secretary Charles Wilson and Navy Under Secretary Thomas S. Gates left Tuesday night for Indo-China to survey the situation.

• **Conflict**—Officials are now confronted with two possibilities for the next six months. One is their goal of getting back to economic growth based on civilian demand. The other is an arms program that could quickly tip the scales back on the side of inflation. Politically—and every other way—they prefer the first. But they know the second may be thrust on them.

### I. Arms for Asia

The fall of Dienbienphu had been expected—and largely discounted—two weeks before that French fortress was overrun. It isn't that single event that

led to the sudden round of armament conferences. What surprised the Administration are indications of successful Communist infiltrations far beyond Dienbienphu—in all parts of Vietnam.

Officials are wondering whether they have seriously overrated the strength of the French-supported Vietnam regime. If so, the need for fighting men to back up any forthcoming Southeast Asia compact may be much greater than the Administration had thought.

• **More Buildup**—Arms expansion, if it came, would follow these general lines:

**Air Force:** The present goal of 137 wings would be boosted back to something like the old Truman program of 143 wings. Expansion would be mostly in troop carriers and trainers. A big part of any additional money would go for expansion of bases, rather than for new planes.

**Navy:** Additional funds would probably be concentrated on ship modernization.

**Army:** The present goal of 17 divisions by the end of fiscal 1955—a reduction of about three divisions from present strength would be raised. How much would be the key to the whole strategic concept—whether we would go back to the idea of fighting local wars, if necessary, or continue to stress "massive retaliation."

There are signs that the swing is back to ground troops, along lines of Army Chief of Staff Matthew Ridgway's recent testimony before Congress. With or without an expansion of ground troops, any new commitments would bring stepped-up purchases of small arms, ammunition, and possibly

trucks, Jeeps, and some other vehicles.

The decision may be slow in coming. Pentagon officials believe it could be six weeks before the real Communist strength in Vietnam is known.

### II. Impact on Business

There's some slack in the economy, which might absorb arms increases without inflation. In April, unemployment was up again in factories—where most of the military spending would fall. Steel output is low, running about 68% of capacity.

But the effect of these gaps would quickly be wiped out if an upturn in military orders was accompanied by an expansion of civilian demand. Together, the two factors could be inflationary, and the possibility isn't too remote. Inventories in some lines are approaching the bare-bones level, and in most lines have been worked down to at least comfortable levels. Cautious buying in recent months has reduced the amount of goods en route from factory to consumer, and production has been cut accordingly in a number of fields.

This means a solid increase in demand from any source would have an immediate impact, and could easily lead to a scramble for preferred places on order boards.

• **Inflation Hazard**—Prices are the chief worry of the President's economic advisers if we go into a rapid business pick-up. On the whole, prices have shown remarkable strength all through the downturn. The indication is that they might start upward if given even a minor push. That's a prospect this inflation-conscious Administration particularly dislikes.

### III. Peacetime Plateau

If the decision is against an arms increase, the Administration will be back on ground it has carefully prepared. The prospect then would be for a leveling-off at close to present activity, followed by an upturn when normal peacetime demand is ready for another round. Most of Eisenhower's administrators expect this to happen in the fall. They offer two reasons:

• They believe the slide has come to an end. They have never been afraid

of a real crash, but a year ago they were unanimous in warning that the boom would have to end, that a shakedown was inevitable. They're convinced now that the shakedown has been evident in the past 11 months—and that it very likely is completed. They borrow this confidence largely from businessmen (BW—May 8 '54, p. 26), not from anything that shows up yet in black and white on the official indicators.

- **The effect of Eisenhower's economic policies**, designed to stimulate growth, will begin to take hold in a few months. These include such items as the tax revision bill, already passed by the House and scheduled for Senate debate in two weeks; the \$1-billion highway program and the St. Lawrence Seaway, already passed by Congress; liberalized home financing regulations and social security rules, still in committee hearings but being pushed hard by the White House.

This reflects a growing feeling of bouncy good cheer about the peacetime course of business—particularly among the businessmen and the politicians closest to Eisenhower.

- **Worried Pros**—Some of the professional economists in the government are more cautious. They were cheered by the 3% gain posted by retail sales in April over March (page 30), but remain worried about unemployment. This was down in April, but not so much as might be expected this time of year. In particular, the economists didn't like the 250,000 drop in factory employment. They also point out that June will lose a flood of students into the labor market, which will make the unemployment figures go up again.

These skeptics are not saying much in public. For one thing, they believe a good shot of optimism will do businessmen and consumers a lot of good. They have no desire to spoil anybody's spring. They also know Washington almost always fails to detect early shifts in the business climate. So they are the first to admit that when the readings are finally in for May, the rising confidence of businessmen may be borne out. They would just like to wait a while and see.

- **President's View**—Eisenhower put himself somewhat on their side last week, when he was asked at a press conference if there was anything in the current business situation to justify the conclusion that an upturn is already under way. He answered that favorable factors now outnumbered unfavorable ones but, on the basis of what the economic experts were telling him, he warned against too much optimism.

Commerce Secretary Sinclair Weeks more nearly reflected the prevailing mood when he offered to bet anyone in a large audience that there would be no depression. He got no takers.

## Seaway at Last

**St. Lawrence project finally gets approval from Congress. First bids may be called for by yearend.**

The St. Lawrence Seaway should be ready for business by 1960, bringing some marked economic changes to the Great Lakes region—and the U.S. coastal area, too. It will make Chicago, Buffalo, Cleveland, and dozens of other inland cities into seaports, accessible to tankers and freighters from overseas and from U.S. coastal ports.

Congress completed action on authorizing legislation last week, ending 30 years of controversy. President Eisenhower will sign the bill as soon as it reaches him. Then there will be just one possible legal obstacle—and that is expected to be out of the way by June; the Supreme Court is almost sure to turn down before its summer recess any petition opponents may file.

So the signals are set for full speed ahead. Initial contracts for lock excavation on the U.S. part of the Seaway could be advertised for bids by late fall or early spring.

- **Preliminaries**—Some administrative steps come first, however—to set up the St. Lawrence Seaway Development Corp. established by the bill, and arrange for it to sell to the U.S. Treasury an issue of revenue bonds up to \$105-million to finance construction. This is the estimated federal cost of constructing the waterway. City port projects and business developments will make total spending much greater.

The President's first step after signing the bill will likely be to designate the Secretary of the Army to oversee the corporation, and the Corps of Engineers to supervise construction. The corporation administrator and his deputy will probably be named and confirmed by the Senate in 30 days. Then the administrator and Treasury Secretary Humphrey can quickly get together on the terms of the bond issue. This is limited to 10% of the bonds the first year, and not more than 40% in any later year.

- **Canada**—Though the law authorizes construction only on the U.S. side, it directs the new agency to cooperate with Canada on management, operation, maintenance, and setting of tolls sufficient to retire the bonds in 50 years. The corporation has power to negotiate directly with Canada's St. Lawrence Seaway Authority.

Despite the anticlimactic reaction of Canadians to congressional approval, there's no doubt Canada will go along with the joint Seaway project. This

was clear in recent statements of External Affairs Secretary Pearson, and the Washington visit of Governor General Massey left no doubt of it.

- **Contracts**—With preliminaries over, it won't take long to get contract plans in shape to call for bids. The Corps of Engineers has a complete set of drawings, prepared in 1941 and needing only updating.

Here's what the U.S. will do:

- **Thousand Islands section.** Less than \$2-million is the estimate for rock dredging to a controlling depth of 27 ft., with minimum channel width of 450 ft.

- **International Rapids section.** The U.S. will build two lateral canals in this 46-mi. section, on the south side of the river, with three locks to bypass new power dams; canals to have 27-ft. navigable depth, locks to be 30 ft. deep over the sills.

Included are (1) the 3-mi.-long, 440-ft.-wide Point Rockaway or Upper Canal, with one 800-ft. by 80-ft. lock, normal lift of 1 ft. to 5 ft.; (2) the 8-mi.-long, 440-ft.-wide Long Sault or Lower Canal, with two such locks, normal lift of 43 ft. and 38 ft. At the upper end of the Long Sault Canal will be a guard gate to permit unwatering and repairs.

## It's Two Strikes Now On Pittsburgh Stores

A transit strike that immobilized Pittsburgh's major mass-transportation system this week complicated life still further for five downtown department stores. They had had a strike of delivery drivers and some other employees on their hands since Nov. 27.

What with independent bus lines continuing to operate, railroads expanding commuter schedules, and motorists sharing rides, the expected peak-hour traffic jams—and late-arriving employees—were relatively few. But department store customers, who have had to do a lot of shopping by auto, were also few. In the customary Monday evening store hours, some had more idle salesgirls than shoppers. Parking garages had less than normal volume, in some cases down as much as one-third.

One store executive, looking around sadly on Tuesday, even had this comment: "Brother, we're dead."

But there was still one hope. Newspapers published pictures of midcity parking lots with big stretches of empty space, and railroad schedules listing extra commuter trains. Some store ads had maps showing considerable nearby parking space. At midweek, the hope was that fear of traffic jams had been overcome and shoppers would take to the road again.



Young Bill Ford, who heads the project, may one day run the company.

RESURRECTION of the Lincoln-Continental, the darling of the 1940 prestige car market, will provide a \$10-million proving ground for a scion of the Ford family.

## Ford Continental Doubles as Classroom

In a long, low, white building in Dearborn, Mich., a young man is being trained possibly to take over management of the Ford Motor Co.

The former Henry Ford Trade School is the temporary headquarters of the company's Special Product Division, headed by William Clay Ford, youngest grandson of the founder of the Ford company. Sometime next year, the division will move to its own building; late in the year it is expected to introduce the 1956 model of the Continental, a luxury car once produced by Lincoln.

According to Detroit observers, the car is being revived for three purposes:

- To give Bill Ford a thorough grounding in automobile production and merchandising.

- To give Ford and Lincoln-Mercury dealers a showpiece that is bound to lift showroom traffic.

- To give the Ford name a new meaning for quality, and help destroy the old "Tin Lizzy" aura.

The Continental's new building would be able to produce only about 10 cars a day on straight time. That means about 2,500 a year. Widely circulated reports put the price at about \$10,000. With a total sales revenue of approximately \$25-million a year (very low in the automobile industry) and a restricted market, Bill Ford and his dealers would be expected to make a profit. How Bill Ford makes out will indicate whether he can meet the tough business standards of the present Ford management.

- Scion—A quick glance at the company shows why it is putting so many chips on Bill. Henry Ford, II, oldest of the

three brothers (he's 36) is president; Benson (34) already has an important job as a company vice-president and general manager of the Lincoln-Mercury Div. Two nonfamily men have the other key posts: Ernest R. Breech, executive vice-president, and L. D. Crusoe, vice-president and general manager of the bread-and-butter Ford division. Both men are nearing 60.

If the Ford family intends to continue active direction of the company it founded, Bill Ford, the youngest (29) of Edsel Ford's three sons, has to qualify for a top job.

- \$10-Million Education—The vehicle Bill has selected for his education has been awaited for six years by a hard core of quality-car lovers. Only 5,300 Lincoln-Continental were produced—the last in 1948—and it may be the only car whose owners have formed a club "for the preservation of the Lincoln-Continental and everything pertaining thereto."

Regardless of the result, Bill Ford's education may not be so expensive as it might seem. Aside from the cost of the new building, Detroit believes that the initial cost of bringing out the Continental should be around \$10-million. That's possible because, with the low-production run, expensive high-volume tooling is unnecessary. Another factor, the Continental would probably include in the purchase price automatic transmission, power brakes, power steering, power windows, and seat controls. This means money-saving standardization.

- Old Favorite—The Continental fits right in with Ford's present emphasis on quality (BW-Apr.24'54,p31). The

original actually was a "cobbled up" Lincoln, with a Lincoln 12-cylinder engine that had less power than would be desirable by today's standards. So, despite its distinctive and still modern-looking lines, some owners thought it was better to look at than to drive.

But it attracted a fiercely devoted following. Edsel Ford, the story goes, once drove his prototype Continental to Florida and returned with 200 orders. The car was never produced in volume, and in 1948 was discontinued because it would have been too expensive to restyle.

- Performance—According to present trade reports, the new Continental will have the performance its predecessor lacked and even more distinctive styling. The low estimate for tooling costs indicates use of an existing engine, almost certainly a modified Lincoln engine. That engine now develops 205 hp., and by 1956 could easily be souped up to better than 235 hp.—which probably will have to be done because 1954 Chryslers have that much power.

- Styling—On the assumption that Ford, in continuing the name "Continental," intends to trade on the appreciation of the older model, substantial keys to the styling of the new car probably can be found by studying the originals. These all featured the rear tire mount and the closed-in quarter panel, giving the rear-seat occupants privacy. The sloping grill was another distinctive mark.

Since the Continental would attract buyers who would be expected to prefer elegance to futurism in design, it would not be surprising to find the car somewhat on the conservative side.





Greenbrier Hotel, in the hills of West Virginia, last week turned its charms loose on high-powered executives. It's good promotion for the Chesapeake & Ohio RR, owner of the famous old resort.



C&O PRESIDENT Walter Tuohy (left) braved showery skies to play one of the championship golf courses. He likes golf, and he meets important shippers such as . . .

## Selling Itself—and the C & O—to



BUSINESS mixes with sociability as Tuohy (left) joins Leland I. Doan, president of Dow Chemical, and Mrs. Doan at cocktails. Wives love social events, like . . .



THE GRAND BALL, with Meyer Davis music, that climaxes the weekend, and . . .



**RALPH SHERRICK** of U. S. Steel, a good C&O customer (West Virginia's Gov. William Marland in background), and . . .



**MAX ZIVIAN**, president of Detroit Steel Corp., another big shipper whose good will is an asset to C&O.

## Businessmen Who Play and Pay



**C&O HAS A CHANCE** to show off its passenger trains. Guests who don't fly all the way or come in their own cars must use the train to reach Greenbrier's siding.

It's axiomatic that a lot of top-level business contacts are made on the golf course and over a cocktail table. The Chesapeake & Ohio RR takes advantage of this pleasant situation by inviting big-name businessmen every spring to its own resort hotel, the 150-year-old Greenbrier (pictures).

C&O can count on it that a lot of the guests will turn out to be important shippers whose good will can do wonders for a railroad's freight revenue. And it's more than a happy accident that most of them have to ride C&O's passenger trains to get to the hotel. But the invited guests still feel honored; and acceptances always reach the maximum number that the hotel can accommodate—and everyone still pays his own way, at luxury-hotel rates.

Last weekend, a full house of 850 businessmen and wives enjoyed Greenbrier's sixth annual spring festival—C&O's one big promotion event of the year. As the pictures indicate,

business and society were neatly mixed.

• **Showcase**—The C&O management, headed by President Walter Tuohy, is aware that the public in general—and the shipper in particular—judges a railroad, even its freight hauling ability, largely on its passenger service. That's a problem, because C&O is very much a freight line on which few of its shippers have much occasion to ride personally. So Greenbrier plays an important role as a glittering showcase of C&O's ability to dish up luxury.

More than that, the resort generates a bit of business all year round for C&O's trains, and it is financially self-supporting. For its sales promotion value, it could cheerfully be written off against the public relations account but, last year at least, it showed a net profit.

For the C&O, therefore, Greenbrier is an artificial terminus, a place to attract passenger business from the men who say "yes" on freight business.

• **New Aristocracy**—Greenbrier and its post office address, White Sulphur Springs, are revered names in the social world. It was originally a cottage colony around the mineral springs. C&O RR bought the resort in 1910 and, three years later, built the original 250-room Greenbrier Hotel. At that time, the resort was a natural for the railroad to own—everyone traveled by rail. The social aristocracy visited Greenbrier on the same circuit as Bar Harbor, Newport, Southampton, and Aiken.

Now the aristocrat who has the money to bask at Greenbrier is the businessman on an expense account. This social change is the key to the hotel's successful year-round operation.

Until 1948, when Greenbrier reopened after wartime military occupation, C&O management had never thought of keeping the place open all year. The season ran from April through October, with a lull in July and August when patronage was low. After October, the hotel and cottages simply shut down for the winter.

This part-time operation was costly, and management decided to make a big play for the business aristocrat. C&O promoted Greenbrier as a site for conventions, trade conferences, sales meetings, as well as for private holidays. To start the new policy of all-year operation with a burst of publicity, the road threw its first spring festival in 1948, a grandiose affair with a guest list that started with the Prince of Wales.

• **Grand Opening**—For the 1948 shindig, the C&O picked up the tab for everything: room, meals, golf tournament, and other outdoor and indoor recreation. It has commonly been said that the bill came to \$30,000; there have also been bitterly critical estimates that it ran three times that much.

But response to the first party raised the suspicion that business, political,

and social celebrities would flock to Greenbrier just as rapidly if they paid their own way. Since 1948, therefore, C&O has been inviting people and letting them pick up their own bills. The only cost to the road is the \$10,000 prize money for the professional-amateur golf tournament.

Late in March each year, Truman Wright, manager of Greenbrier, sends out about 7,000 invitations announcing the date for the spring festival. Then he sits back and hopes not more than 850 acceptances come in. The hotel has sleeping quarters for 1,025 guests, but dining room and kitchen facilities can guarantee luxury service for only 850.

C&O is now completing a \$2-million improvement that will bring dining capacity into line with number of beds.

• **Business Meetings**—Greenbrier isn't a place where just anyone can hold a convention. To discourage high-spirited groups whose members dote on water pistols and electric buzzers, the Greenbrier limits invitations to blue-chip management groups and professional societies in banking, law, and medicine.

Even with this restriction, Greenbrier last year played host to 318 groups ranging from 10 to 800 delegates. More than 60% of this business is repeat business, and some groups have made reservations through 1961. About 40% of the hotel's revenue comes from such groups, and a lot of it is in what used to be the off-season.

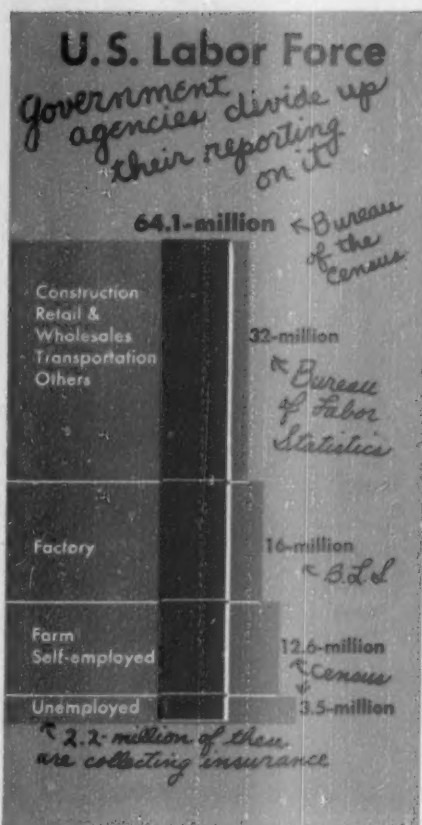
• **Smiling Through**—Last weekend's festival was dogged by rainy weather, yet no one complained. Cards, dances, and cocktails kept the wives and the more sedentary males quite happy. And 102 amateur golfers played in the tournament on the two championship courses despite the rain. Many were there just to see the pros play, with Sam Snead, the local professional, as the main attraction.

More and more the spring festival is becoming a business-social event in its own right. You could detect that in the comments of the guests.

Joseph R. Thompson, secretary of Hall China Co. of East Liverpool, Ohio, for example, said he and his wife were there for a sort of spring vacation. They don't ride, swim, play tennis or golf, yet they welcome a chance to see their business friends and to make new acquaintances.

A Texan says he flies up every spring because his wife loves the formal social events, and he gets a chance to poke around some of the nearby purebred cattle farms.

As far as C&O RR is concerned, it's a quiet, low-pressure sales device. The only salesman representing the railroad is Walter Tuohy, but he could have missed shaking hands with few of the 850 guests.



## Indicators

Two sets of figures came out this week that give you some important clues as to just how business is going. They indicate that the normal seasonal upturn came through right on beat this spring—but somewhat less vigorously than usual:

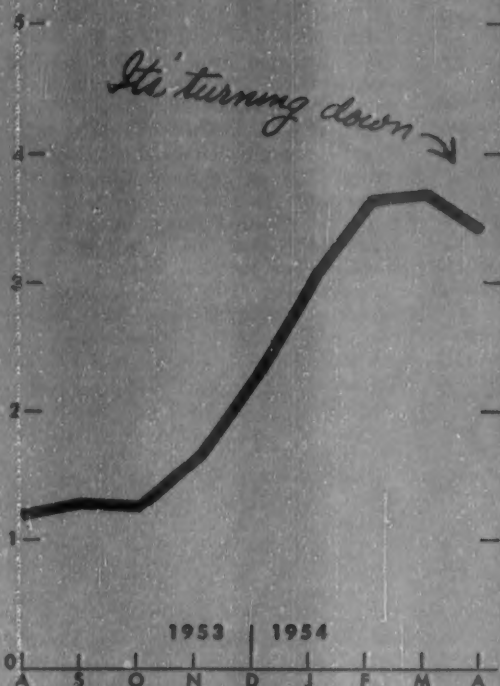
• **Retail sales** showed a smart pick-up in April. Adjusted for seasonal factors (but not for the fact that Easter came earlier last year), they topped March by \$500-million, or about 3%. This was the best showing for any month since last July.

• **Unemployment** in April showed its first dip since last October. It dropped 260,000 below the March level of 3,725,000.

• **Sales Climb**—By and large, the sales figures look better than the unemployment figures. Warmer weather and the arrival of Easter undoubtedly gave retailers a boost—just how much nobody knows. Easter last year came on Apr. 5; this year it was Apr. 18. This means that all of the traditional pre-holiday buying was concentrated in the one month this year. That alone may account for the fact that the seasonally adjusted total of \$14.3-billion



## Unemployment (in millions)



Data: Bureau of the Census.

## Retail Trade (in billions of dollars)



Source: Dept. of Commerce.

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# Are Cheerful—at a Quick Glance

just about matches April of last year, which means that there was a switch in the basic trend. In the earlier months of 1954, sales consistently ran behind 1953.

Consumers laid out about \$200-million more for soft goods in April this year than they did in the same month of 1953. They offset this by spending \$200-million less for hard goods. As a result, most of the gains were scored by such lines as clothing stores, department stores, gasoline stations, drug-stores. Sales of autos and parts dropped \$125-million behind a year ago. Furniture and appliance sales bucked the trend against hard goods; they gained \$35-million.

• **The Labor Market**—The figures on employment and unemployment are a little harder to read. And they don't add up to such reassuring totals. You can see some real gains here. But most of them are less than seasonal.

This month, for the first time, the government gathered up all of its scattered figures on the labor market and issued them in a single package. This statistical suitcase contains: (1) the Bureau of the Census estimates of total

labor force, employment, and unemployment; (2) the Bureau of Labor Statistics estimates of nonfarm employment; (3) the Bureau of Employment Security totals on unemployment insurance claims.

For April, all three of these windows into the labor market give the same view. They show some rise in employment, some drop in unemployment, a leveling off in claims for jobless pay.

• **Seasonal Gains**—All told, the number of jobholders increased about 500,000 in April. The hitch is that almost all the gains came in lines that ordinarily show a strong upswing in the spring—agriculture and construction, for instance. Farm employment jumped by 200,000, construction by 100,000. Both of these reflect the coming of warmer weather.

Retailing showed a 140,000 increase in jobs, but there's a catch in this figure. The BLS survey was made in mid-April, in the last week before Easter. This was just the time when retailing was hitting its spring peak.

• **Weakness**—The gloomiest spot in the employment statistics is the figure on factory jobs, which account for some 16-million of the total. Factory employ-

ment dropped another 250,000 in April, and that drop put it about 1.3-million behind April 1953. The biggest shrinkage came in the transportation equipment industry: Declines in autos, railroad equipment, and shipbuilding more than offset a year-to-year gain in aircraft.

The decline in factory employment takes some of the bloom off the rest of the figures. You can conclude from the rise in retail sales and the drop in unemployment that business recession certainly isn't gaining momentum, that it may in fact have reached the turning point. But as long as factory jobs are shrinking, you can't start referring to the recession in the past tense.

• **CIO's Blast**—This pessimistic viewpoint found ample expression for itself when CIO held a conference on unemployment in Washington this week. Delegates listened sourly to a speech by Secretary of the Treasury Humphrey in which he argued that tax relief for investment would reverse the downturn. They enthusiastically applauded President Walter Reuther's assertion that more than 5-million workers are either out of a job or working only part-time.

# Next Big Merger Brews

Olin Industries and Mathieson Chemical will put the question to their stockholders in June. The team aims to form a chemical company in du Pont's league.

Last winter Nash and Hudson merged to form American Motors. This spring General Dynamics absorbed Consolidated Vultee Aircraft. With only four months gone by, 1954 began to look like the year of the giant mergers. It had already surpassed 1953, despite that year's big ABC-Paramount and Kaiser-Willys tieups.

This week the trend looked even surer when news broke that Mathieson Chemical Corp., of Baltimore, and Olin Industries, Inc., of East Alton, Ill., had taken the first official step toward merger. The boards of directors of both companies voted to submit merger proposals to their stockholders on June 29. Barring the unforeseen, the Olin Mathieson Chemical Corp., with assets of over \$500-million, will come into being this year. It's expected to be incorporated in Virginia and probably headquartered in New York City.

**• Alike But Different**—In a lot of ways, Olin and Mathieson are almost twins. They are the same age—both were formed in 1892. Both have a history of mergers and acquisitions. Olin's 61-year-old president, John M. Olin, is aggressive. Mathieson's 45-year-old Thomas S. Nichols is even more so. But the similarity ends in the products they make.

Last year Olin sold \$228-million in brass, explosives, firearms, ammunition, cellophane, polyethylene film, cigarette paper, and other products. Mathieson sold \$244-million in industrial and agricultural chemicals, petrochemicals, drugs, and pharmaceuticals. If revenue from nonconsolidated subsidiaries and licensees is included, last year's combined sales would have passed \$500-million.

**• Chemical Entry**—If you want to stretch a point and call the new combination a chemical company, it would have ranked fourth last year, behind E. I. du Pont de Nemours & Co., Union Carbide & Carbon Corp., and Allied Chemical & Dye Corp.

There are good reasons for suspecting Olin Mathieson will eventually be called a chemical company. Olin has been steering itself in that direction in recent years, particularly since it started making cellophane under a du Pont license in 1951. Furthermore, the word "chemical" has been firmly implanted in the new company's name, and business indexers will be put to it to find another category for it. Finally, a chemical man, Mathieson's

Nichols, is to be company president.

**• Nichols' Role**—This week, many were guessing that it was Tom Nichols who sparked the merger. Nichols is just about as ambitious as they come. He has steered the company's tremendous postwar expansion (1946 sales were only \$20-million). He pushed the 1952 merger with E. R. Squibb & Sons.

Nichols looks like the big man in the deal for another reason, too. John Olin is moving up to be chairman of the new company. His brother Spencer, who has been Olin's first vice-president, is only 53, but according to a source close to him, he will take a smaller part in the combined operation. He will be a director and a member of the executive committee but not an officer.

**• Hanes as a Power**—The conclusion that this is a Nichols show, however, can be too hastily drawn. Besides him and the Olin brothers, there is another key man in the merger—John W. Hanes. Hanes is an old Wall Streeter, and former Treasury Dept. Under Secretary. Financial men consider him astute and strictly gilt-edged. Hanes managed Olin's finances through the difficult period last year when it became a public corporation, and he will be the chairman of Olin Mathieson's finance committee.

And Hanes enters the picture on still another count. When Mathieson merged with Squibb, Hanes acted as a voting trustee for large blocks of stock held by Squibb's principal owners. He still votes the shares, which are now Mathieson. After the merger is approved, stockholders of both companies will receive one share of Olin Mathieson for each share held. In addition, Mathieson stockholders will receive a 5% stock dividend before the merger takes place.

Control of Olin has been in the hands of a stock trust voted by the two Olins and Hanes. This trust will be replaced by a new one to vote most of the Olin Mathieson shares owned by the two Olins, Hanes, and also Nichols. The four men will vote the trust. Nichols says the trust will assure that both companies are represented on the new board. Hanes, of course, in addition to being a member of this trust, will continue to vote the old Squibb interests, so he will be an important man in the new corporation.

**• Reasoning**—These then are the in-

gredients. But what brought them together?

You'll hear a raft of reasons, some pronounced by Olin and Mathieson, and some definitely not. And one of the latter variety stands out—ambition.

Tom Nichols worked for du Pont in the 1930s, and some say this latest merger means he's taking off after the giant. But Nichols isn't alone in his alleged envy of du Pont: One Wall St. chemical man is certain that all concerned "have a psychological feeling they want to be a second du Pont."

There is a second strong reason. John Olin and Nichols are close personal friends. They like each other.

Negotiations have been under way between Olin and Mathieson for about two years, and they were certainly accelerated by a successful combined operation to form the Matholin Corp. a year ago. Matholin makes and sells hydrazine, a multipurpose industrial chemical.

**• Further Factors**—There are, of course, more conventional reasons for the merger. For instance:

**• Markets**—They do not compete in any field.

**• Integration**—Olin's paper and cellophane operations use chlorine and caustic, both made by Mathieson. Mathieson also makes basic chemicals that Olin needs for the manufacture of ammunition.

**• Research**—Olin has 700 people in research, Mathieson 1,050. It is hoped that much duplication will be eliminated.

**• Diversification**—Olin is particularly conscious of the need for spreading its production outside of the defense field. This has been the principal reason for its ventures into chemicals. The merger pushes it into chemicals faster than it ever could have gone on its own.

For Mathieson's part, there is an advantage in being brought closer to the consumer. Chemical men these days like to have a firm grip on their markets. Olin is close to the consumer on many fronts.

**• Yet to Come**—Mathieson Olin is probably only the beginning for Nichols. If the merger of management goes well (there are rumors that the Squibb deal has had its rough spots), and if the combined operation proves to be a financial success, there undoubtedly will be more absorptions or mergers.

In early 1954, Mathieson moved into another field when it acquired 50% interest in Reaction Motors, Inc., a leading rocket engine maker. This points up an obvious expansion area for Olin Mathieson. Mathieson has Reaction Motors, Matholin makes hydrazine—used extensively as a rocket fuel—and Olin makes ammunition and small arms.

# MOTCH & MERRYWEATHER WEIGHT-STANDARDIZING

## MILLING MACHINE

FACTORY EQUIPPED  
WITH



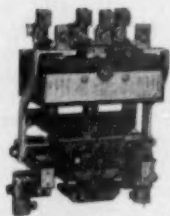
**ALLEN-BRADLEY**  
**Solenoid Control**



There is nothing more simple in construction than an Allen-Bradley starter or relay. The ONE moving part guarantees millions of trouble free operations. There are no pins, pivots, hinges, or bearings to cause trouble and result in costly production stoppages. The double break, silver alloy contacts require no maintenance. All Allen-Bradley starters are equipped with two overload relays which can be of various designs as required by the job that must be done—but all types are equally dependable.

Your customers will value the fact that your machine comes equipped with "Quality" control. Therefore—specify Allen-Bradley!

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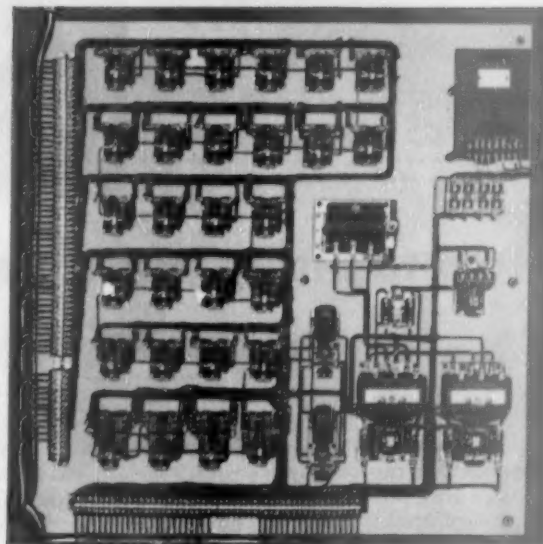
Bulletin 709 Starter  
Size 5: 100 hp, 220 v;  
200 hp, 440-550 v.



Bulletin 849  
Pneumatic Timer.



Bulletin 709 Starter.  
Size 1: 5 hp, 220 v;  
7½ hp, 440-550 v.



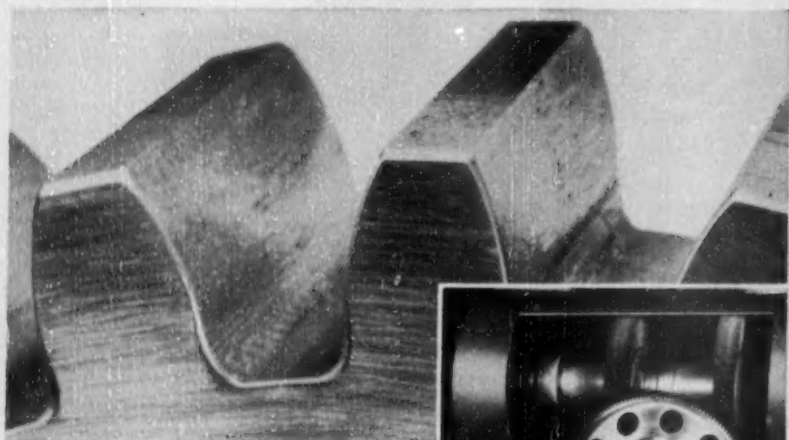
The Allen-Bradley special control panel which provides complete automatic operation for the Motch & Merryweather milling machine.

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QUALITY



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*Gear for speed reducer. Former burr removal output by hand was two per hour. Brushamatic does 10 per hour... and improves quality!*

## How to make parts last longer

**T**HESE closeup photos show teeth of identical gears after removal of burrs by two methods. The top one shows result by the conventional hand method. The bottom one is result attained by the Brushamatic® machine method.

This push-button method not only removes burrs and feather edges... it cleans the part thoroughly and blends surface junctures. Results are uniform... piece after piece. Service life of part is increased because stress-concentrating tool marks, scratches and nicks are blended out. And Brushamatic cuts costs! In the case of the operation shown in the inset, it turns out work 5 times as fast as the formerly used hand method.

Call your nearby Osborn Brushing Analyst to study *your* burr removal, cleaning and finishing operations, to suggest ways to improve *your* products and cut *your* costs. The Osborn Manufacturing Company, Dept. A-37, 5401 Hamilton Avenue, Cleveland 14, Ohio.

TRADE-MARK

**Osborn Brushamatic** 

BETTER QUALITY... LOWER COSTS... AT THE PUSH OF A BUTTON

## BUSINESS BRIEFS

**New boss of Pennsy:** James M. Symes, 56-year-old son of a baggagemaster, will take over on June 1 as 13th president of the Pennsylvania RR. Now executive vice-president, he succeeds Walter S. Franklin, who is retiring as head of the nation's largest rail system.

**Wheat crop prospects** are perking up, the Agriculture Dept. reports. Department estimates of the winter wheat crop as of May 1 are 707-million bu., a rise of 130-million bu. over earlier prophecies. For the year, the seers expect a total crop of 930-million bu., which is about 40-million bu. more than annual use.

**Music on tape** for home use got strong new backing when RCA-Victor said it would start bringing out a limited number of taped recordings in June. It has recorded 17 items: nine Red Seal pieces, to sell at \$14.95 each; four Blue Bird releases, at \$12.95; and four popular pieces at \$10.95.

**Wedded at last:** The Flying Tiger Line and Slick Airways this week formalized their merger (BW-Jan. 16 '54, p. 32). The union of the nation's two largest air freight carriers produces a company doing a \$35-million annual business, with \$12-million in assets, 2,700 employees, and 53 aircraft.

**First-quarter exports** from the U.S. slipped to \$3.4-billion—13% below the 1953 period—the Commerce Dept. reports. A sharp drop in military aid told most of the story; commercial exports were off only 5%. On the import side, U.S. purchases ran around \$2.5-billion, a 10% decline.

**U.S. jet transport** is a bit nearer reality. This week Boeing Airplane Co. formally rolled out its prototype jet tanker transport at Seattle. The potential rival for Britain's now grounded Comets made its debut two months ahead of time—sure sign of Boeing's determination to get into the jet picture.

**Protection of competition**—not of competitors—is the new doctrine of the Federal Trade Commission. An FTC trial examiner recommended dismissal of a complaint that Purex Corp. injured competition through price discrimination. His grounds: Only one competitor was involved, and "it does not follow that because a competitor has been injured, competition has been affected." This further extends FTC's reversal of New Deal Robinson-Patman policy (page 126).

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- ✓ Rails to shipside . . . direct cargo interchange.
- ✓ Ample crews of high-calibre stevedore and warehouse labor.
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- ✓ Terminals especially equipped for handling fertilizers and fertilizer materials in bulk.
- ✓ Service by 9 trunk-line railroads extending into 21 states. Belt line connection with terminals.
- ✓ Ice-free and open the year around.
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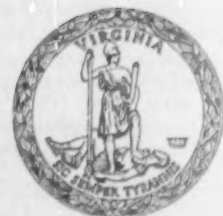
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## "SHAKE THE HAND YOU SAVED"

"Did you hear about that close call I had on this punch press last week? I'd have lost my hand for sure if it hadn't been for that machine guard. They tell me you're the guy who figured that gadget out."

A modern loss prevention program is responsible for saving Tom's right hand. Such a program does more than cut down industrial accidents. It builds a plant's reputation as "a good place to work."

No one knows the specific problems of plant safety better than Liberty Mutual loss prevention engineers. They can find the danger

spots, work out practical and inexpensive ways to correct them. Not only do they recommend ways to make the plant safer, they help to make each man a safer worker.



Liberty Mutual's accident prevention service is but one phase of a complete program devised to cut down loss in industry.

Called "Humanics," the program has three objects: to keep men from being hurt . . . to return them to work more quickly if they are hurt . . . and to rehabilitate them if they are badly hurt.

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★ Better Compensation Insurance Protection at Lower Cost through HUMANICS ★



# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
MAY 15, 1954



These are rough days for Eisenhower—roughest he's had as President. This is an election year, with control of House and Senate up to the voters. And things aren't going too well, here at home or on the foreign front. It's the sort of situation that may well force some big policy shifts—swings that change the course of business.

Look first at the foreign situation. Geneva is going against the U.S. Dulles put a bold front behind a weak hand. And everybody called him—the Reds and our own allies. He folded. But we're still in the game.

That explains the talk of more defense. No decisions have been made. But in the Pentagon and at the White House there's active consideration of additions to the defense program—more spending for guns. (See page 25.)

This could reverse the business trend.

The "new look" in armaments, which means less spending, proved a handicap to Dulles. His tough talk on Indo-China simply wasn't believed at Geneva. So now a push to beef up our strength is part of the effort for a Southeast Asia alliance.

Here's the thinking behind the alliance idea:

Southeast Asia is essential if a Communist advance is to be prevented. Should the Reds win that area, the next targets would include Japan, areas in the Pacific from the Philippines on down through Australia. Officials seem convinced this is in the book of Communist plans for conquest.

Our over-all concept of how to fight may well be wrong. Our allies think it is. Dulles has emphasized "massive retaliation"—strikes against the sources of Red aggression. Our strength has been geared to that. But that means big war to stop Red expansion with A- and H-bombs. Our allies don't agree to it. They would rather have little wars, like Korea, for years, than such a showdown. It looks as if we may be giving in to them.

A change would make a difference in defense spending. We would still go ahead with A- and H-bomb production and long-range bombers to carry them to targets. But there would be extra spending for men and weapons needed for "small wars" in the East. The cost would run into billions.

Note this question in the minds of foreign diplomats: Where does Treasury Secretary Humphrey stand on all this? It's the first question they ask you. The question recognizes that Eisenhower's hopes for a balanced budget depend on the level of defense, and that Humphrey is the No. 1 budget balancer.

The Washington betting is on the side of more money for defense. Here's the argument: The big GOP hurdle in the fall will be business conditions. The optimistic view now is that the decline is nearing bottom. To GOP politicians, that's not reassuring. No one wants war, but a stepup in defense could end the unemployment issue. Defense is an issue easy to explain to the voters. And right now Indo-China is a good argument.

On the domestic side, too, there are policy shifts to watch for. The Democrats got a taste of blood when they killed Taft-Hartley revision in the Senate—shelved the issue by sending it back to the Labor Committee for more consideration. The facts on how that happened are worth reciting.

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
MAY 15, 1954

On T-H, Eisenhower was riding an unpopular horse. His labor advisers see nothing wrong with the present law. They think it will work fairly, if given proper administration. But Eisenhower had talked about changes in the campaign, so he insisted on a revision of the statute. It was obvious from the start that he couldn't get anything that would please both labor and management. All predictions have been on the side of no change.

The Senate Democrats ganged up as they never have on any other issue. Anti-union and pro-union factions voted together to kill proposed changes. This suited Republicans in Congress, even though it embarrassed Eisenhower.

Other parts of the President's program are in jeopardy. The Democrats may fight among themselves. But like a family, they turn on the GOP.

Rigid 90% farm price supports will be voted, despite Eisenhower's plan to cut them down when surpluses exist. Eisenhower may veto Congress on this. But his stand will be hard on many congressmen up for reelection.

Social security liberalization may be sidetracked. There's a split among House Ways & Means Committee Republicans on what should be done. Committee Democrats are just waiting, hoping the GOP does nothing.

The tax revision bill is getting deeper into politics. It's too soon to say it is in real trouble. But in the House and Senate cloakrooms you hear a new line of talk that runs like this: Eisenhower is mishandling foreign affairs. Indo-China could get us into another shooting war, maybe big. So, why not wait. If defense must be increased, then taxes should not be cut. It's politics, of course. But in the campaign, it was easy for the voters to associate Eisenhower with lower taxes. If he fails, no matter the reason, the Democrats will have an easy-to-understand issue. The Democratic move has enough strength to delay the tax bill in the Senate, even if it lacks strength to kill it.

Denial of jobs to Reds in plants important to defense would be O. K.'d under Attorney General Brownell's latest legislative proposals.

Aim is to plug a loophole in existing law. Present law permits barring subversives only from plants working directly on defense contracts.

A new government purchasing directory is available. It's of 92 pages, compiled by the Small Business Administration. It lists 4,000 categories of end-items, with names and addresses of installations that buy them. You can get copies by writing the Government Printing Office, Washington 25, D. C., ask for the U. S. Government Purchasing Directory. Price, 50¢ per copy.

How to stimulate consumer buying is a question being kicked around among the President's economic advisers. One idea is that some form of consumer credit insurance could be used to encourage installment lending, just as mortgage insurance encourages lending for home buying.

No early proposals are expected. This is just one of many schemes that are being weighed in case action must be taken to prevent the slide in business from turning into a more serious recession. Right now, the official feeling is that the dip is at or near the bottom. If defense is expanded, as talked, an early upturn probably would develop.

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Cleans drawing boards, tracing cloth, fabric, even wall paper! **Rubkleen** ... won't crumble or weaken lines. Available in two sizes (as shown) and in large oblong shape.

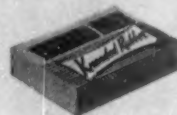
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# FINANCE

## AUTO PROFITS:

What recession plus red-hot competition has done to them

		(millions of dollars—fiscal years)					First Quarter	
Company		1947 to 1954		1951	1952	1953	1953	1954
		High Year	Low Year					
General Motors	Sales	\$7,531.1	\$3,815.2	\$7,465.6	\$7,549.2	\$10,028.0	\$2,546.8	\$2,410.2
	Net Income	834.0	288.0	506.2	558.7	598.1	151.3	189.2
Ford	Sales	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	Net Income-x	181.5	58.3	103.8	72.4	N.A.	N.A.	N.A.
Chrysler	Sales	2,190.7	1,362.6	2,546.7	2,601.0	3,347.9	924.3	529.5
	Net Income	132.2	67.2	72.0	78.7	74.8	24.4	7.7
Studebaker	Sales	477.1	268.0	503.3	585.3	594.2	162.5	72.5
	Net Income	27.6	9.1	12.6	14.3	2.7	d-1.0	d-6.4
Nash-Kelvinator*	Sales	427.2	250.3	401.1	358.4	478.7	N.A.	N.A.
	Net Income	28.8	18.1	16.2	12.6	14.1	6.2	d-0.8
Hudson*	Sales	274.7	159.5	186.1	214.9	192.8	**	**
	Net Income	13.2	5.8	d-1.1	8.3	d-10.4	**	**
Packard	Sales	232.0	116.6	178.2	233.7	335.8	123.7	57.8
	Net Income	15.1	3.9	5.6	5.6	5.4	3.5	d-0.4
Kaiser Motors	Sales	341.6	104.5	145.7	302.9	359.0†	**	**
	Net Income	19.0	d-30.3	d-12.3	d-4.7	d-27.1‡	**	**
Willys-Overland	Sales	175.3	107.9	219.9	301.7	§	§	§
	Net Income	7.1	1.6	4.6	6.0	§	§	§

d — Deficit

N.A. — Not available

\* — Nash-Kelvinator & Hudson merged under title of American Motors Corp., effective May 1, 1954

\*\* — Not yet issued

† — Includes Willys Motors, Inc. and subsidiaries

‡ — Acquired by Kaiser Motors, April 28, 1953

x — These earnings reflect only changes in profit and loss surplus and in reserves, etc., without giving effect to dividend payments, if any

© BUSINESS WEEK

## Wall Street Is Not Impressed

Wall Streeters are taking a sour view of most auto shares, despite industry prophecies that passenger car and truck production for 1954 will hit between 5.2-million and 6.3-million, and that passenger car output may be the third largest on record.

The Street was still unimpressed early this month when 1954 passenger car number 2-million rolled off the line. Output for the year was running only 7.8% below 1953, but the Street was glumly aware that General Motors and Ford were making off with the bulk of the goodies.

The two giants have already boosted their combined share of the passenger car market from 60% in 1946 to 82%

last year, and they are working under forced draught for still more, in spite of the antitrusters' mutterings (BW—May 8 '54, p. 30).

• **Independents**—With the big getting bigger, the independents—plus that sorely shrunken member of the Big Three, Chrysler—have been getting progressively littler. Production, profits, and stock prices have all been telling a sad story for Chrysler, Studebaker, Nash, Packard, Hudson, and Kaiser.

You get the picture from the tabulation above of first-quarter earnings. On the side of the giants, General Motors shows a 25% boost in net, despite a falling off in sales due to less defense work. The end of the excess profits tax

helped the earnings; so did the fact that much of the lost defense work was replaced by more profitable civilian car sales. Ford, of course, issues no figures and has no market price for its stock. But trade talk is that it, too, did well in the first quarter.

The bright side ends right there. Chrysler's net was less than a third of first-quarter 1953. Studebaker and Packard both wrote their stories in red ink.

Of the two companies that melded into American Motors on May 1, Nash-Kelvinator showed a loss while Hudson has not yet issued a report on early 1954 results.

Kaiser Motors, which bought out



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LOOK FOR THE *Cockletone* WATERMARK

## **"... General Motors shares moved upward in solitary splendor ..."**

**AUTOS** starts on p. 41

Willys on Apr. 28, has not yet reported. But unit production figures indicate a first-quarter loss.

Both reports and informed guesses for the first three months are reflected in the stock market.

GM shares moved upward in solitary splendor, hitting a record high of \$72.75 last week. That's a tidy gain from the 1954 low of \$58.75, and shapes up well against earlier years, adjusted to allow for the 2-for-1 stock split in 1950. The equivalent top in 1946 was \$40.19, while the 1929 peak was \$45.88.

Once you get past GM, though, the price story is depressing:

Chrysler is selling around \$61.37, compared with the peak of \$98 reached in 1952. Adjustment for Chrysler's 2-for-1 split in 1947 shows a 1929 equivalent top of \$70.37.

Studebaker is lagging along at around \$14.50 a share. That looks thin against a 1946 price of \$38.50, and the post-1949 high of \$43.50 rung up last year.

Nash-Kelvinator sagged to \$11.87 a share just before the merger with Hudson. In brighter times it had recorded a 1946 high of \$25.37.

Hudson, on the eve of the Nash merger, was going for something like \$8.25. In 1946, it had been as high as \$34.50, while the 1949-1953 top came in 1951, at \$20.37. American Motors, the successor company to Hudson and Nash, has been moving in a range from \$11 to \$12.75.

Packard of late has been hovering around \$3.50. Back in 1946 it went as high as \$12.62, but the 1949-1953 peak was only \$6.87, reached in 1951.

Kaiser can be had for only \$2.25, a country mile away from the 1946 peak of \$23.50. For the 1949-1953 span, the top of \$9.25 was reached in both 1950 and 1951.

• **Dividends**—The stock-price pattern has not been followed completely in dividend policy. Chrysler continues to top the list at a \$6-per-share rate, compared with GM's \$4. Last week the Chrysler directors voted the regular \$1.50 quarterly dividend payable June 12, although per share earnings for the quarter had dropped to 88¢ from the 1953 \$2.81. That means that first-quarter earnings cover only 58% of the dividend.

Among the independents last year, Studebaker paid \$3 a share, Nash-Kelvinator \$2, Hudson 75¢, and Packard 20¢. Wall Street is pessimistic



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"... biggest question is whether the industry can find a market for all its cars ..."

AUTOS starts on p. 41

about the possibility of such rates being maintained.

Studebaker, with a \$6.4-million net loss for the first quarter compared with a \$1-million deficit for the 1953 quarter, has already omitted the dividend usually paid around this time. And Packard took no dividend action at its February meeting.

• **Prospects**—The biggest question for the near future is whether the industry, even prospering GM and Ford, will be able to find a market for all the cars it is turning out.

Normally, passenger cars should be selling well in the April-June stretch. Stocks of new cars in dealer hands are around 650,000 units, which the factories say is just about right for the season. The dealers aren't so sure. They say new cars are coming along too fast; concessions are being freely offered to customers in a range of \$200 to \$800, depending on the make and model of the car.

Among the independents, many dealers have thrown in the sponge. Generally, it has been the smaller outfits that folded. But in New York, the 50-year-old outfit of Bishop, McCormick & Bishop—which billed itself as the "world's largest" Dodge-Plymouth dealer—closed its doors. BM&B had 12 sales and service stations; all their furniture, equipment, and unsold cars and parts are being auctioned off.

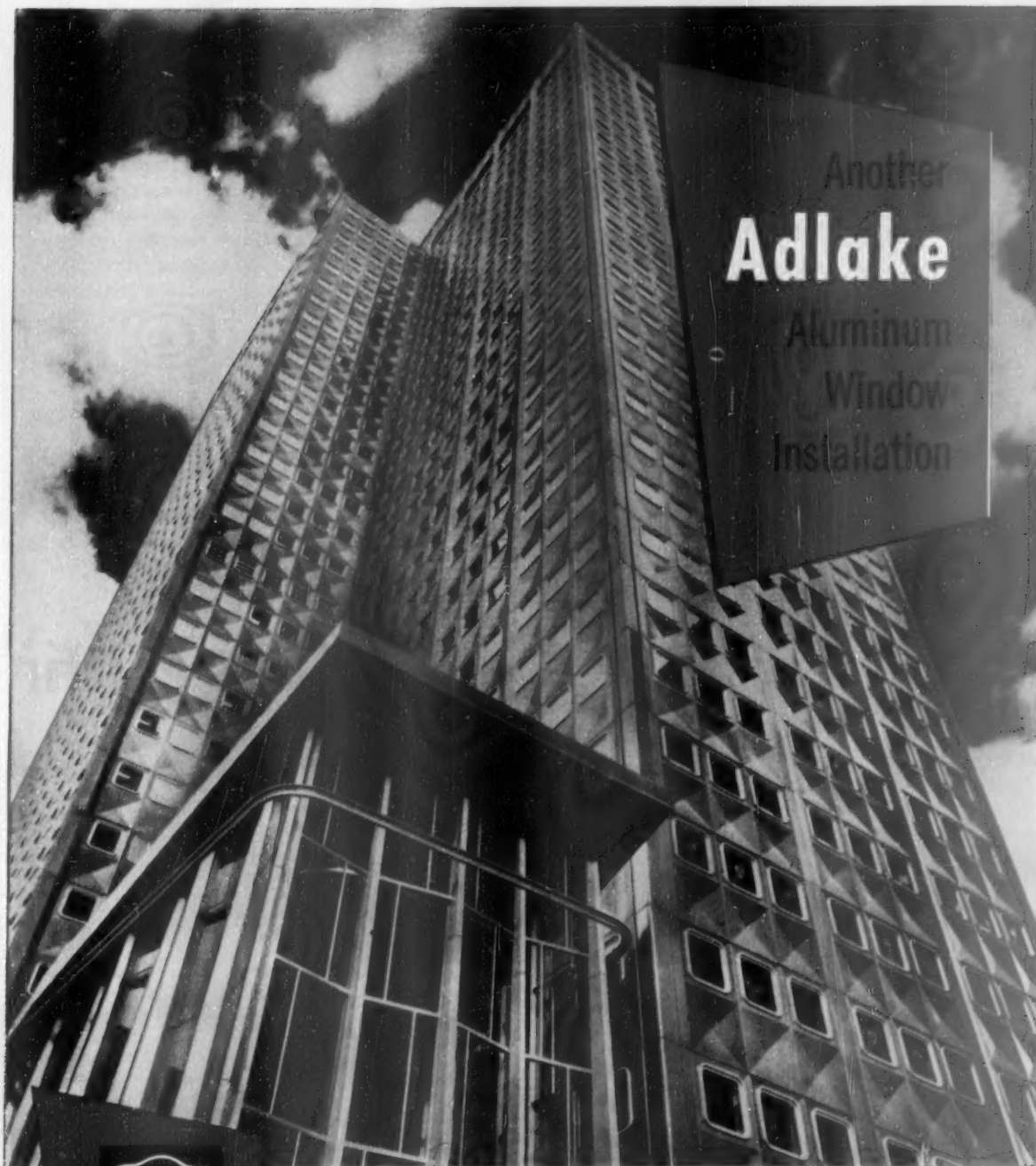
• **Shutdowns**—And the over-supply has pushed clear back from the dealers to some of the independent factories. Hudson, Studebaker, and Packard have all had shutdowns of varying duration; Nash laid off 900 workers.

Only GM and Ford continue to see a bright picture. GM president Harlow H. Curtice (BW—Mar. 12 '53, p. 92) sticks to his forecast that the market will absorb 6.3-million passenger cars and trucks this year. At its current pace, GM would sell about half of the passenger cars, and a big chunk of the trucks.

As for Ford, its economic analyst, George P. Mitchings, predicts that at least 5-million passenger cars will be sold this year.

Sales-minded GM and Ford officials present plausible reasons for their optimism; they say car replacement demand is large, formation of new households needing autos is high, consumer buying is not far below 1953, and there is a general consumer belief that the business recession's dip in jobs and income will not become worse.

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Housewife on morning shopping tour visits Merrill Lynch stockmobile at East Paterson (N.J.) shopping center where it parks every Tuesday; she wants to sell 50 shares of insurance company stock. Account executives figure women are valuable customers, exert a wide influence on others.

## Putting

Shoppers at the Elmwood shopping center in East Paterson, N. J. (pictures), have found in the last month that they can buy more than detergents and chlorophyll dog food in their marketing rounds. Merrill Lynch, Pierce, Fenner & Beane has taken to the suburbs with buses full of stock quotations, and plenty of enthusiasm (BW—Apr. 3)



CUSTOMERS were mostly skeptical curiosity seekers. . . . One couple bought one share of stock. . . . A shopper was puzzled over array of



STOCKMOBILE parks near one of largest supermarkets in East. Merrill Lynch has long eyed suburban business, now it is . . .

## Wall Street on the Road

'54,p124). The New Jersey stockmobile operates from Newark, goes to a different suburb every day. Similar buses fan out from Boston and Chicago.

The pitch is really aimed at the small suburban investor, mainly through the Monthly Investment Plan (BW-Mar. 6'54,p46) for putting in as little as \$40 per month. So far a fair number of

regular accounts and a few MIPs have been opened, prospect lists have swelled, and there has been a wide demand for portfolio analysis through the stockmobile.

Actual sales haven't been terrific, but as one Merrill Lynch executive put it, "This is really a lot of missionary work that should pay off later."

Radiotelephone provides instant contact with market conditions . . . but has its drawbacks; frequent transmission troubles show eventual need of permanent phone facilities.



prices. All were treated as potential investors.



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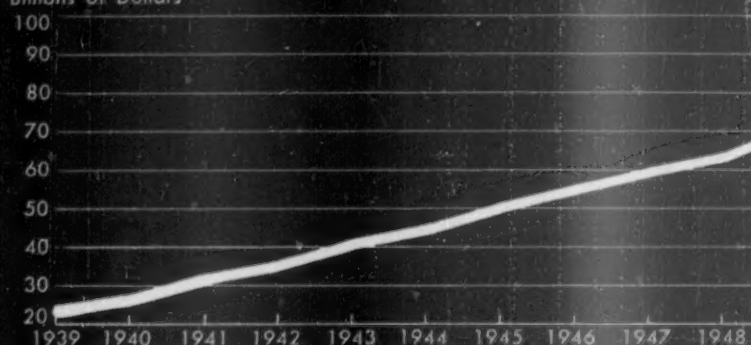


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## Corporate Working Capital Has Rocketed

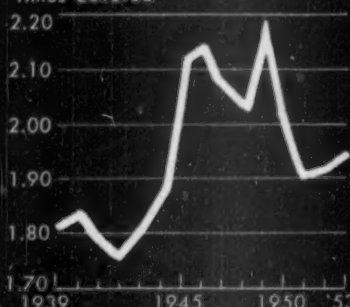
Billions of Dollars



## ... But Liquidity Hasn't Kept Step

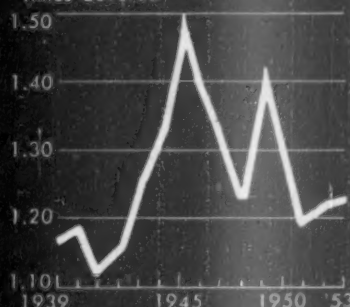
RATIO OF CURRENT  
ASSETS TO  
CURRENT LIABILITIES

Times Covered



RATIO OF CASH, GOV'TS,  
AND RECEIVABLES TO  
CURRENT DEBT

Times Covered



Data: Securities & Exchange Commission

## Rosy in Total, Drab in

Corporate working capital last year continued its 14-year climb (chart above), but the curve is flattening out. For the year as a whole, the rise was the smallest since the Securities & Exchange Commission started keeping estimates of working capital. In the fourth quarter, in fact, there was a trifling decline of \$600-million.

By SEC reckoning, at the close of 1953 all U.S. corporations (except insurance companies and banks) had current assets that topped current liabilities by a margin of \$92.7-billion. This spread was \$2.8-billion larger than the margin at the end of 1952—a gain of 3.1% for 1953.

The yearend figure is more impressive when it is compared with 1945, just before the postwar boom. SEC's latest estimate of working capital is 80% above the close of 1945; the difference is a mammoth \$41.1-billion.

• **Who Gained**—According to the SEC

survey, the entire \$2.8-billion gain for 1953 was chalked up by two categories of corporations: manufacturing and finance.

Working capital of manufacturing companies rose \$1.6-billion during the year, a gain of 3% that closely paralleled the 3.1% for all companies. Of course, manufacturing companies are a big chunk of the national total. They account for \$56.3-billion of the \$92.7-billion working capital at yearend.

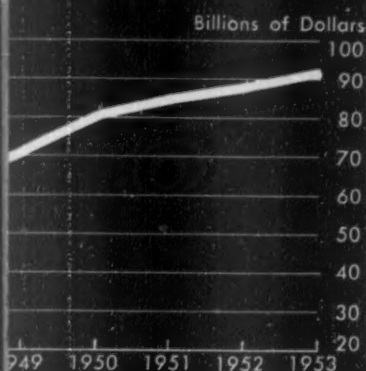
Finance companies reported the remaining \$1.2-billion of the year's gain. Dollar figures of this category are relatively small—only \$6.8-billion of the \$92.7-billion at yearend—but the percentage gain was a big 21%.

Other categories of corporations remained close to their 1952 levels of working capital, SEC figures show.

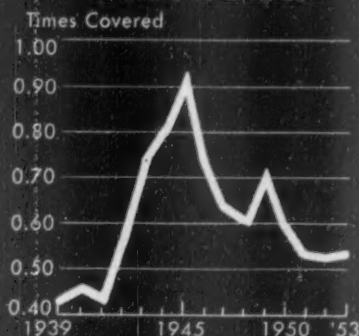
• **Other Factors**—Dollar volume of working capital isn't the only criterion of the liquidity of a business, of course.



Since 1939 . . .



RATIO OF CORPORATE CASH AND GOV'TS TO CURRENT LIABILITIES



## Detail

A banker or credit man is just as much interested in the composition of these funds as in their size. So the lower charts tell an interesting story, too.

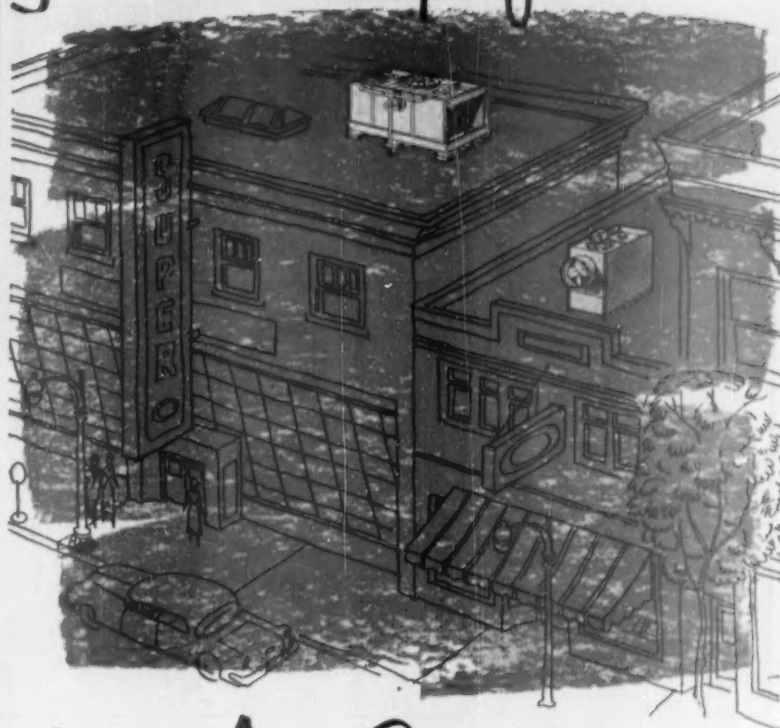
The conclusion: Business liquidity was little better at the end of 1953 than at the end of 1939—in fact, the past 10 years it has retrogressed while total working capital was zooming. Since 1939, working capital has risen \$68.2-billion—238%—but the other indexes haven't kept pace. At the close of last year:

Current assets covered total current debts only 1.95 times, compared with 1.82 times in 1939, 2.13 times in 1945.

Quick assets (cash, government bonds, receivables) covered current debts only 1.23 times, compared with 1.17 times in 1939 and 1.5 times in 1945.

Cash and government bonds covered current debts only 0.54 times, compared with 0.43 times in 1939 and 0.93 times in 1945.

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UNITED STATES STEEL

## New "Modules" Added To Insurance Package

Double indemnity and protection against off-the-job hazards have been added to Mutual Life Insurance Co.'s "modular" system of comprehensive insurance covering life, pensions, disability, and medical benefits. The New York company offers the protection, called "module multiprotection," to small and medium-sized companies (BW—Aug. 22 '54, p. 79).

The module angle is this: An employer can fit various pieces of insurance into his over-all employee protection program, just as modular office equipment can be fitted together in different patterns. For example, the employer can convert an ordinary insurance plan into a retirement program by adding a pension module.

The amount of coverage under the plan varies with the amount of wages and the size of the group.

## Bankers Blast Cumulative Voting

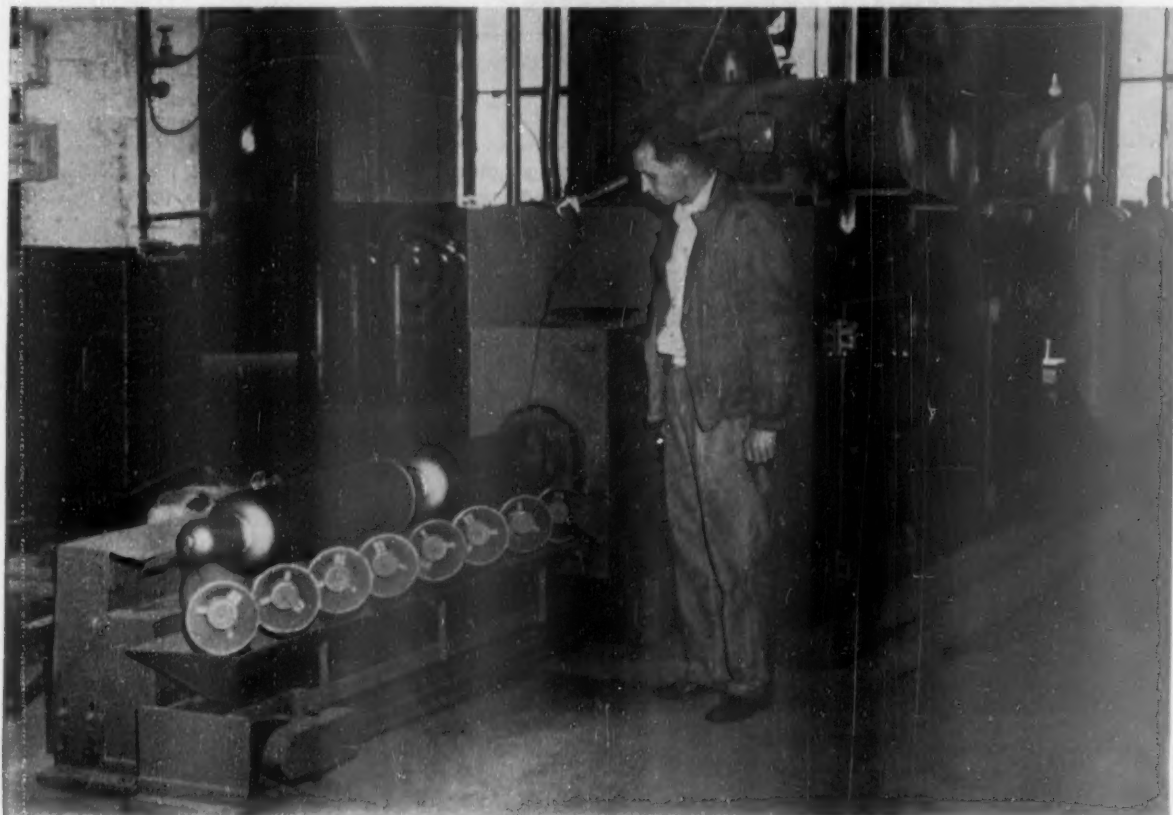
Cumulative voting, the election system that helped Patrick B. McGinnis swing into command of the New York, New Haven & Hartford RR (BW—Apr. 24 '54, p. 33), has come under fire, at least as it applies to national banks.

A couple of weeks ago, the Senate Committee on Banking and Currency heard a representative of the American Bankers Assn. assail the cumulative voting system (BW—May 1 '54, p. 68) as permitting "an irresponsible or unqualified individual . . . to acquire sufficient shares of stock in a national banking association and, by means of cumulative voting of such shares, [to] assure his election to the board of directors for his personal purposes."

• **Questioned**—The Banking Act of 1933 established cumulative voting—which allows each stockholder as many votes as he has shares, multiplied by the number of directors up for election—as a means of giving minority shareholders a voice in the management of nationally chartered banks. Now, as a result of bankers' charges that the system has led to many abuses by unqualified individuals, a bill has been introduced in the Senate to kill the system.

Federal Reserve Board Chairman William McC. Martin, holding that the concept behind cumulative voting is a sound one, has urged that the system be retained "unless it is established to the satisfaction . . . of the Congress that results in actual operation have been so unfavorable that repeal . . . is clearly advisable."

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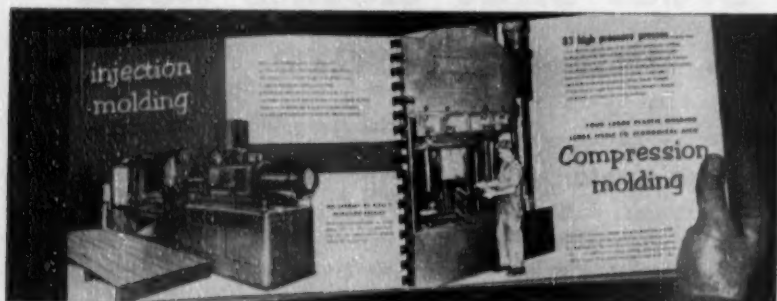


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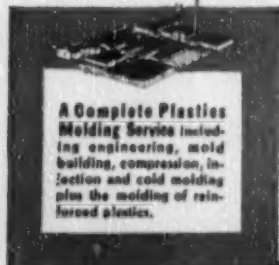
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## FINANCE BRIEFS

Short-term borrowing costs for the Treasury hit their lowest point since Sept. 4, 1947, with the sale last week of \$1.5-billion in 91-day bills. The offering sold at a price equivalent to an average yield of 0.773%; the September 1947 yield was 0.766%.

Capital Transit Co., of Washington, D. C., has permission from the U. S. Court of Appeals to redeem on Apr. 1 \$3.9-million of 4% bonds that don't mature till 1964. But the court ordered that the 40¢ dividend declared by Capital Transit in February be held up till the Public Utilities Commission completes its investigation of the company's finances.

Loans to business by New York City banks were up \$26-million for the week ended May 5. This was the first rise in seven weeks. Since Jan. 1, loans have dropped \$528-million below last year.

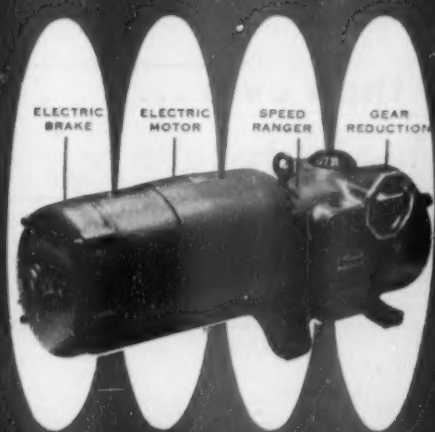
New hotel building (BW-Mav1'54, p116) got a boost when Denver (Colo.) city council approved plans for a \$3.5-million, 15-story luxury hotel, with 200-car underground garage, outdoor heated swimming pool.

The tax-exempt market this week was literally flooded with new offerings—\$238.3-million worth of state and municipal bonds, against \$76.3-million the week before. The weekly average for such new offerings this year is \$99.2-million (BW-Apr.17'54,p150).

Proxy soliciting by Robert R. Young against the present New York Central RR management is being bolstered by 250 salesmen of Diebold Co., of Canton, Ohio. Majority stockholder in Diebold is Clint W. Murchison, Texas millionaire who bought 400,000 shares of Central stock from Young's old love, the Chesapeake & Ohio Ry.

Bank earnings: Last year, the 4,864 national banks in the U.S. had net profits of \$573-million, against \$561-million in 1952. Profits were 7.92% of average capital invested, against 8.17% the year before, however. ... Commercial banks insured by the Federal Deposit Insurance Corp. had total net profits of just over \$1-billion in 1953, up 4% from 1952.

Earnings of the major railroads were off by more than 50% in the first quarter, according to the Assn. of American Railroads. First-quarter net income of Class I roads was \$88-million, compared to \$185-million for 1953 period.



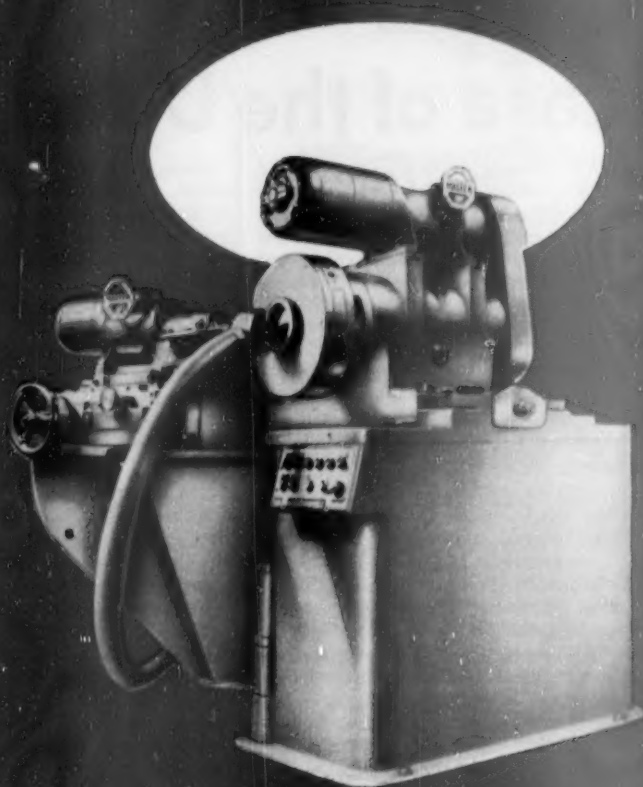
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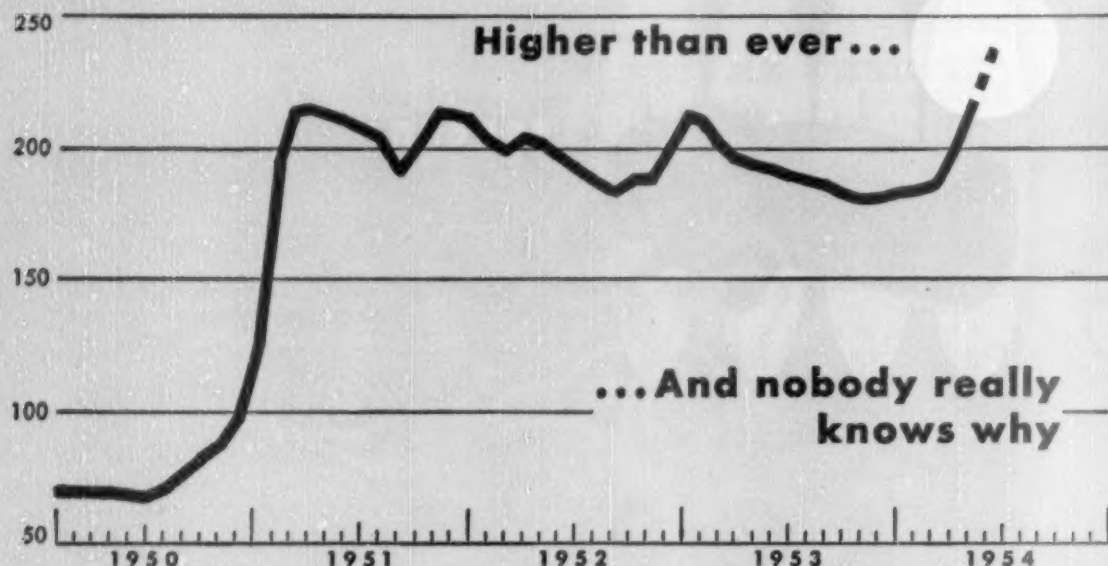


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# COMMODITIES

## MERCURY PRICES:

Dollars per Flask



Data: Engineering & Mining Journal.

BUSINESS WEEK

## Case of the Disappearing Imports

With its price shooting skyward (chart), mercury is the mystery metal of the day. You can take your pick of a raft of rumors and conjectures about what's happening to the market but solid facts are few and far between. Washington, the place where all the answers lie, couldn't be more evasive.

Here's what is happening:

- **Fact:** The U.S. government is taking almost all the mercury that's being shipped from Spain and Italy. It is getting the lion's share of this—although, according to rumor, not all of it—through a series of barter deals exchanging U.S. wheat for mercury. It is also buying some from Mexico.

- **Fact:** Offerings of mercury in the open market are down to a trickle. Since Spain and Italy, between them, normally contribute around 65% of the total U.S. supply, this is not surprising. Under pressure of the shortage the price has been moving straight up. Last week it stood at an all-time high of \$238 a flask—as compared with \$184 a flask last November (chart).

The big question is: Where is all the mercury going to?

- **Atomic Role?**—Almost to a man, Washington officials dodge behind the

"strategic information" curtain when asked. It's not even clear which agency is handling the procurement for the government. In earlier wheat-mercury deals (also never officially announced although by now an open secret), Commodity Credit Corp. acted as the agent for General Services Administration. But right now neither agency will admit having anything to do with the current exchange. Officials of the Office of Defense Mobilization are likewise mum.

For a long time the rumor was that the metal was going straight into the U.S. stockpile. But this was belied by another, fairly solid, rumor—that the stockpile goal was about filled back in 1950, and that the stockpile now contains about twice as much mercury as was originally planned.

Latest theory is that the mercury is being used somehow in the atomic energy program. The Atomic Energy Commission won't say anything one way or the other. But an ODM official said last week that the metal was being procured for an "immediate defense need"—and hinted that this need had something to do with atomic energy.

And the Bureau of Mines has provided one other straw in the wind. Buried

in one of its regular quarterly reports on mercury was this cryptic statement: "Mercury was reported to be used in one of four experiments conducted for the purpose of appraising the prospect for private industrial participation in joint production of electric energy and fissionable material from reactors."

- **Consumers' Plight**—All this may make a first-class mystery, but it's not nearly enough information to satisfy U.S. mercury users—who are fit to be tied. The thing that hurts most is that the basic condition in mercury, government activities aside, is one of overproduction and oversupply. To the mercury-using industries, this feels like an entirely artificial shortage.

Some industry sources even charge that the situation basically has nothing to do with the need for mercury at all, but rather with the government's need to get rid of surplus wheat. Mercury, they say, entered the picture simply as a material that could be taken in exchange for the wheat. However, Washington officials—to the extent that they will say anything at all—deny that this is just another disposal program for farm surpluses.

During most of 1953 demand for



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"... supplies are so short  
that the problem is one of  
availability..."

MERCURY starts on p. 54

mercury was fairly weak and supplies were more than ample. So prices fell fairly sharply—and that price drop is contributing to the difficulties now. Since prices were falling, no one was willing to carry extra stocks of the metal. Then, when the market tightened suddenly around the turn of the year, most users of mercury were caught very short.

Now supplies are so short that the problem is one of availability—regardless of price. Average U.S. consumption of mercury last year (aside from stockpiling or any government use) ran to about 4,400 flasks a month. Yet one important user says that now he couldn't get delivery on 200 flasks—at any price—in less than 60 to 90 days.

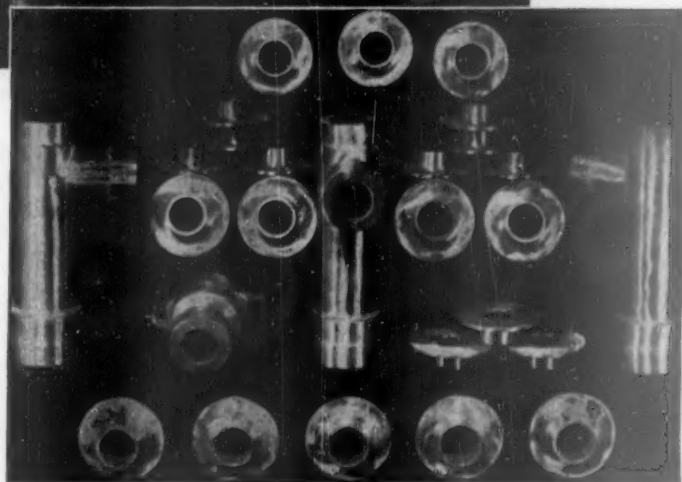
• **Prospects**—There are two things that might ease the situation:

The government might release some of its huge stocks to industry. This is what mercury users are pressing for. On the whole, it doesn't seem likely that this will happen. However, the Preparedness Subcommittee of the Senate Armed Services Committee has started a preliminary investigation into the whole matter.

U.S. production might pick up, stimulated by the high prices. Last year domestic production came to only 14,330 flasks, or only about 15% of total supply. During World War II, however, U.S. production (almost entirely from California and Nevada) was more than triple that figure. The trouble is that most American production is expensive. While it would certainly pay at these prices, mining companies generally aren't confident that these prices will hold. Yet most observers do look for an increase in U.S. production.

• **Uses**—Chief uses of mercury are in electrical apparatus (including the mercury cell), industrial and control instruments, and in insecticides, fungicides, and the like. The development of the mercury cell—and particularly its use in chlorine and caustic soda plants—has boosted the consumption of mercury substantially.

However, although the initial demand from these plants is very big, it's pretty much a one-shot deal—the mercury isn't depleted in operating the cell and is used over and over again. As a result, many observers feel that once the big expansion in chlorine and caustic soda plants is over, the over-all demand for mercury may drop fairly sharply.



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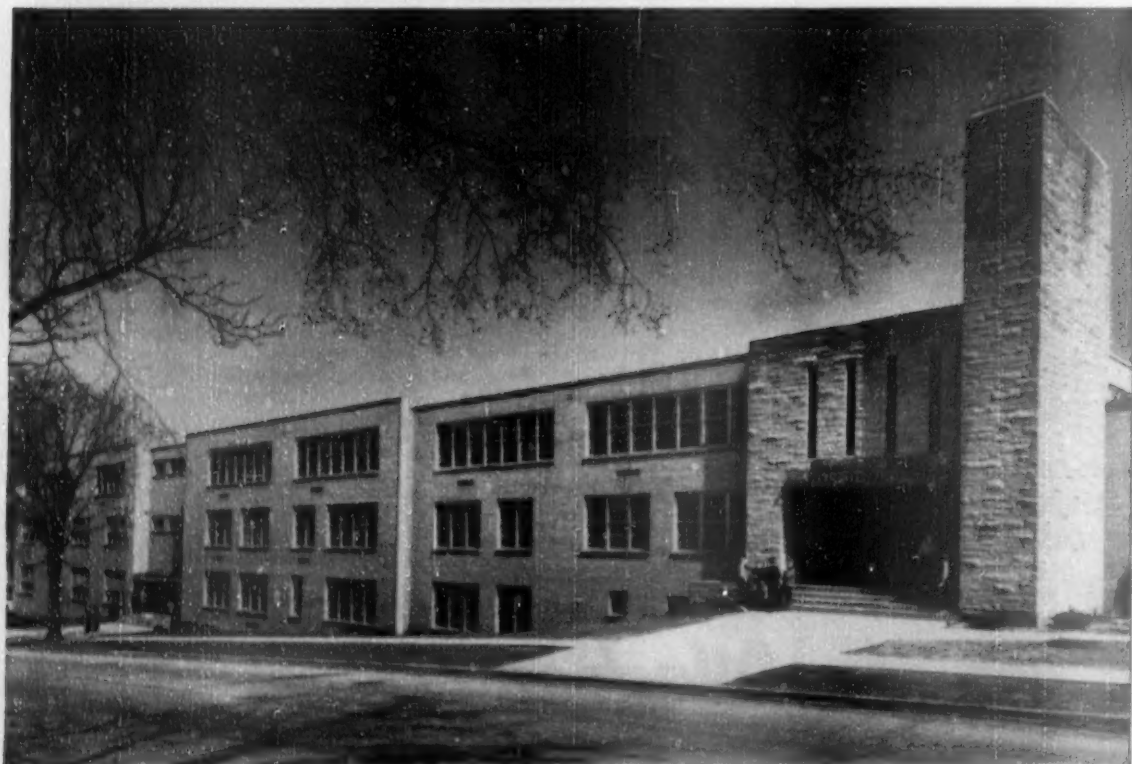
*of the building and its occupants is your answer*. This applies not only to heating and cooling, ventilating and humidity control but to industrial control as well.

Only Honeywell can provide true "customized" control. Because only Honeywell manufactures all three types of controls—pneumatic, electric and electronic.

The story, in brief form, of the Honeywell Customized Temperature Control installation in the Ellis Junior High School is told here.

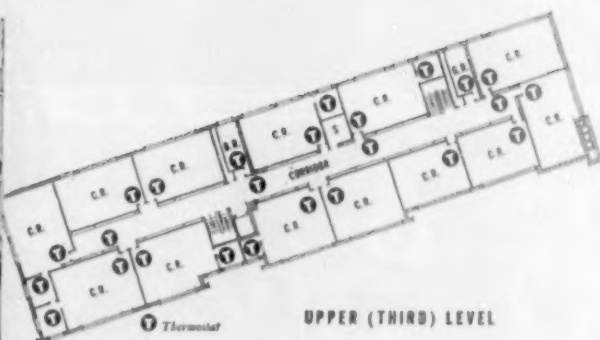
The *techniques* used, applied to your particular problems, can help give you the indoor weather you've always wanted in your building.

*The Emmie U. Ellis Junior High School, Elgin, Illinois. Architects and engineers: Elmer Gylleck & Associates; Heating contractor: A. J. Ironside*





**Exposure and occupancy** factors are the big control problems in the library. The room has large glass areas facing east which admit a good deal of solar heat on sunny mornings. One minute the library may contain five students, the next—fifty. These problems are easily solved, however, by several Honeywell thermostats placed strategically around the room.



## For comfortable, even temperature in new or existing buildings— of any size—specify Honeywell Customized Temperature Control

Whether it's a school, shopping center, factory, office, motel, hospital—or any size building—new or existing, Honeywell Customized Temperature Control can help meet your heating, ventilating, air conditioning and industrial control problems.

You will not only enjoy more comfort and efficiency, you'll save fuel, too.

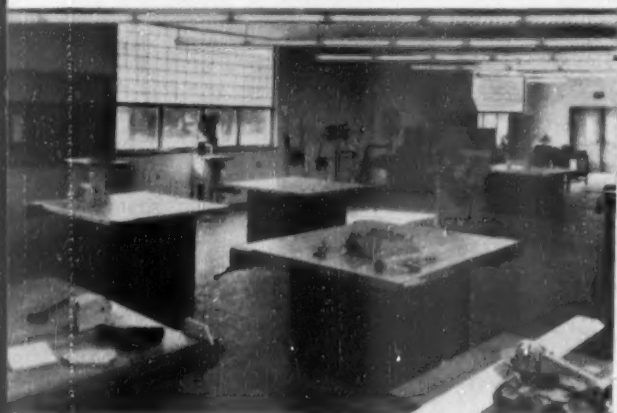
For full facts on Honeywell Customized Temperature Control, call your local Honeywell office. Or mail the coupon today.

*Orrin Thompson, superintendent of schools,  
Elgin, Ill., says:*

"The Ellis school, like most of the schools in Elgin, is a better place to work and learn because it's a comfortable school. Honeywell Customized Temperature Control certainly deserves credit for helping to make it that way."



The "use" comfort factor is the biggest problem in the home economics room. When the ranges go on they go on all at once—adding a great amount of extra heat to the room. Ordinarily this would mean real discomfort. But with Honeywell thermostats on the job controlling the heating and ventilating system, home economics students remain comfortable all the time.



Still another "use" problem must be met in the woodworking shop. Students here are physically quite active, need lower room temperatures for comfort. This condition is met handily by the Honeywell Customized Temperature Control installation. Individual thermostats here control space heaters—giving just the right indoor weather for work.

# MINNEAPOLIS Honeywell



*First in Controls*

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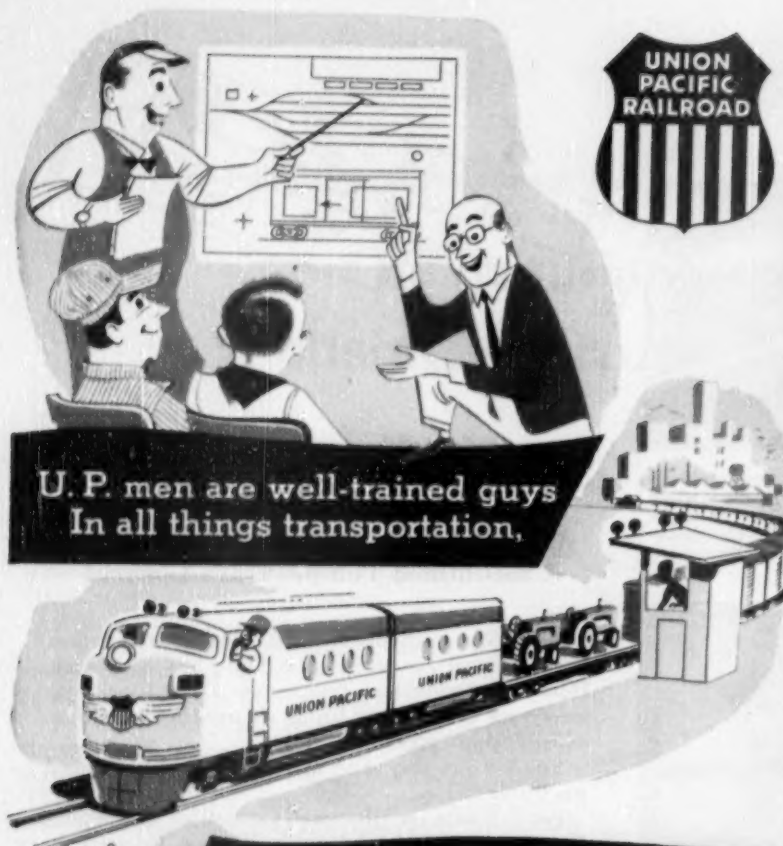
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City..... Zone..... State .....



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## Pinch in Nickel

**Six months after decontrol, the government has stepped up its stockpiling. Industry is complaining.**

When government controls on nickel were dropped last November, Office of Defense Mobilization director Arthur Flemming said that there wouldn't be enough of the metal for civilian uses "for a long time." After six months under decontrol, hard-pressed nickel users are adding a heartfelt "amen." Many say that they are getting even less nickel now than they did under controls.

The fact is that nickel is still very tight, and there's not much that the government can—or will—do about it. Several factors enter into the situation:

- Government stockpiling was stepped up substantially shortly after the end of controls and from all indications will be kept up at a new and higher rate.

- Defense use of nickel hasn't yet dropped noticeably, as it has with other metals. Total defense production is down, but the emphasis has shifted to precisely those items that use a lot of nickel. Less nickel is now going into nickel-plated steel for tanks, but more is being used in guided missiles and jet aircraft.

- **The Short End**—Electroplaters are now the loudest squawkers about the nickel shortage. In 1950, before Korea, they were using close to 20% of total nickel supplies. Since their products are largely classed as nonessential, they got the short end of the stick under controls; their share of supplies dropped below 8% in 1951 and 1952, then picked up to close to 15% in 1953. The electroplaters were among the most vocal in asking for the lifting of allocations. But now their share has dropped back again, and they claim that they're losing out to the steel and nonferrous alloy industries.

The National Assn. of Metal Finishers, a trade group for the electroplaters, is making a survey to demonstrate just how short the industry's nickel supplies actually are. One possible outcome: They may ask that allocations be reimposed.

ODM and the Business & Defense Services Administration—the two agencies most concerned with nickel controls and consumption—believe that the major suppliers can best allocate the metal among civilian customers without government interference. Officials say the suppliers are equitably distributing what little tonnage is available after the stockpile and defense contractors get

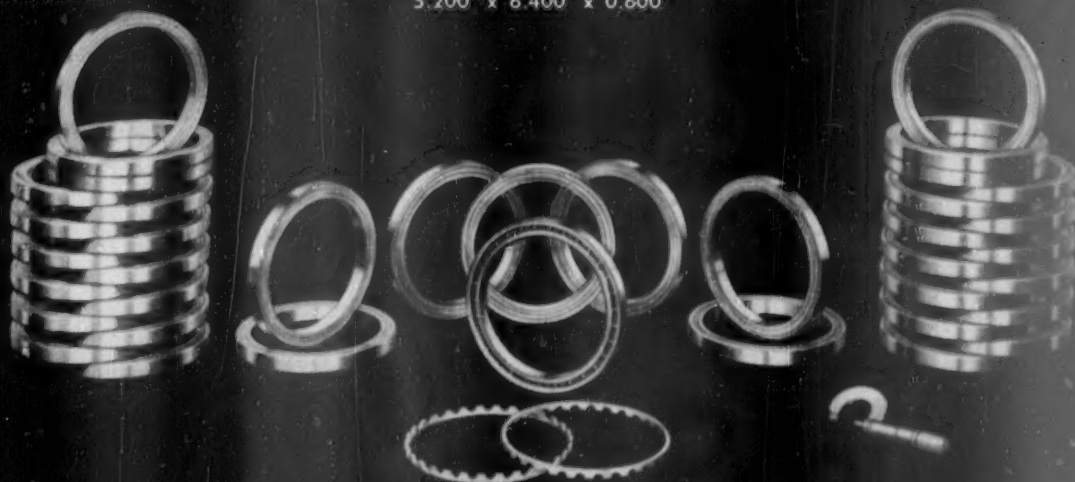




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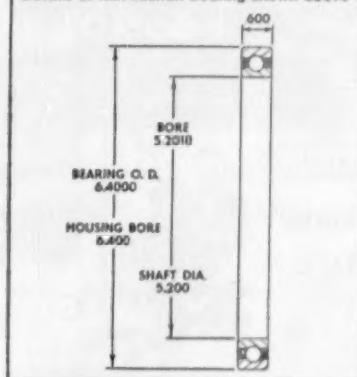


## Special radial ball bearings— industrial jewels produced by Kaydon

Unusual thin-section, high-precision bearings like these are standard products of the KAYDON Engineering Corporation. KAYDON designers and engineers have come to regard "near impossible" assignments as everyday routine.

That's why more and more manufacturers call in KAYDON on problems involving special bearings. They've happily found . . . that to build the special bearings they need . . . KAYDON has the unmatched experience and the facilities necessary to handle the job on an economical basis.

Details of thin section bearing shown above—



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THE **KAYDON** ENGINEERING CORP.  
MUSKEGON, MICHIGAN

KAYDON Types of Standard and Special Bearings:  
Spherical Roller • Taper Roller • Ball Radial • Ball Thrust  
• Roller Radial • Roller Thrust • Bi-Angular Bearings

PRECISION BALL AND ROLLER BEARINGS



## Caught... with our stamps down!

*The afternoon was just one foul-up after another.*

*And at 4:50 p.m., DST, there is a wild wail from the Old Man's secretary. Our stamp box is bare. The new girl had forgotten to buy stamps and everybody is scheduled to get away early on the weekend. Some crisis!*

*So who hotfoots it to the postoffice? And sticks stamps on every last blasted envelope? Don't answer!*

*Monday, I phone Pitney-Bowes and tell them to send up one of those nifty little desk-model postage meters.*

With a meter, you print any value of postage as you need it, for any kind of mail, directly on the envelope (or on special tape for parcel post). With the meter stamp, you can print your own small advertisement, if you like. There's a moistener for sealing envelopes. And metered mail, already postmarked, gets faster dispatch in the postoffice.

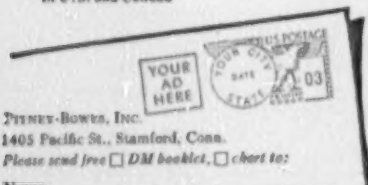
There's a model, electric or hand, for every office, large or small. Ask your PB office to show you. Or send the coupon.

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theirs. Electroplaters, of course, don't agree.

In recent months, the Senate Small Business Committee, the Senate Minerals Subcommittee, and the Joint Congressional Committee on Defense Production have all got into the act—by investigating nickel shortages. The joint committee, headed by Sen. Homer Capehart, supports ODM's position that an allocation system would not improve the situation, and that the stockpile program should not be slowed up in favor of civilian consumers now.

• **New Steps**—Just the same, the government has taken two steps to quiet the electroplaters' gripes:

• Last month, BDSA restored some control on nickel. Defense contractors had been getting priority on available supplies, with no real control

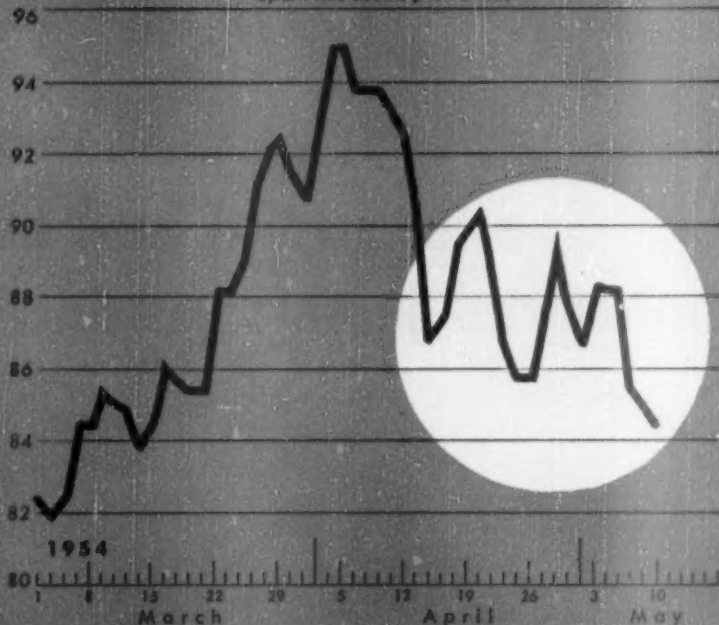
on what they did with the nickel. Under the new rulings, contractors who find they don't need all their nickel for defense work must report the excess stocks to Washington. BDSA will then divert the nickel to other defense contractors, or make it available to non-priority users.

• Last week, BDSA announced a new, double-pronged conservation program. On the one hand, Defense Dept. research and development experts are working with military contractors to get them to use leaner alloys of nickel wherever possible. On the other, BDSA metallurgists plan a series of conferences with nondefense nickel users to "establish production patterns by which it will be possible to use less nickel without undue loss of product performance."

## COFFEE:

### Picture of a Nervous Market

Spot Price (Cents per Pound)



## Green Coffee: It's Scared of Heights

For a while it looked like the green coffee market in New York couldn't go anywhere but up. Between the beginning of November 1953 and the start of April 1954, spot prices for Santos 4s, a standard grade, went from 58.5¢ a lb. to 95¢ a lb.

Then the reaction set in. The market took a sharp spill, and by Apr. 13 Santos 4s were down to 87¢ a lb. (chart). Since then prices have been moving erratically

in sudden spurts up and down, sometimes gaining or losing several cents a pound in a single day. Early this week the price jumped up again to 86.5¢.

• **How They Reason**—Market pundits advance several explanations for the reversal. Demand from roasters for green coffee was very slow during April. Moreover, estimates of the 1953-54 crop from Brazil were raised somewhat, and there were rumors that the 1954-55

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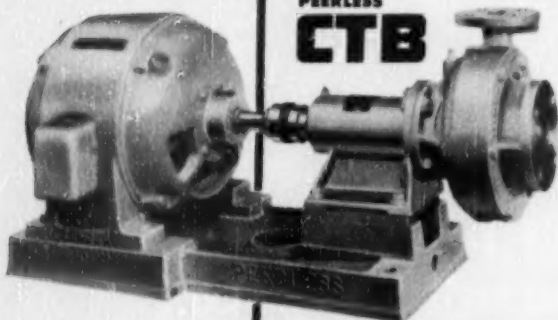
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cuts down bearing wear and eliminates packing and packing maintenance. Its wetted end of Waukesha No. 20, a high nickel-chrome alloy, handles most all clear corrosive chemicals. Available in 4 sizes, a Peerless type CTB transfer pump fits perfectly into both present plants and future plans of chemical and plant operation engineers, to lower costs of pumping and to lengthen time between pump servicing.

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A 6-page bulletin describes the modern Peerless chemical transfer pump illustrated above. Use coupon at right for your copy.

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BW

?



crop would also be bigger than was originally figured.

But the main reason for the way the market has been acting seems to be a psychological one: All of a sudden it turned around, saw how far it had come, and got extremely nervous. One thing that made it jittery is the fact that no one really knows yet what effect the higher prices are going to have on consumption. Retail coffee sales were very high in the early part of the year, then dropped sharply in April and early May. The big question is whether this means an actual drop in demand or whether consumers are simply drinking up all that they bought in January and February.

## COMMODITIES BRIEFS

**U. S. surplus butter**, all 360-million lb. of it, is being made available to commercial exporters for sale overseas—at prices “comparable to world market prices.” The Dept. of Agriculture announcement, made last week, reversed an earlier stand that the butter would not be sold at less than domestic prices.

**Frozen orange concentrate** prices have gone up three times in the past month. Earlier this season, the price trend was downward, under what looked like a surplus of oranges (BW-Mar. 13 '54, p186). Later estimates of the Florida crop were lower than expected, however, and prices for both raw oranges and orange concentrate moved up.

A program for buying up “surplus” titanium sponge, creating a working inventory, and then selling it back, as needed, to manufacturers of defense equipment has been announced by the Office of Defense Mobilization. While large amounts of titanium will eventually be needed, it is still so scarce that engineers aren't designing it into current production. As a result, titanium is in temporary oversupply.

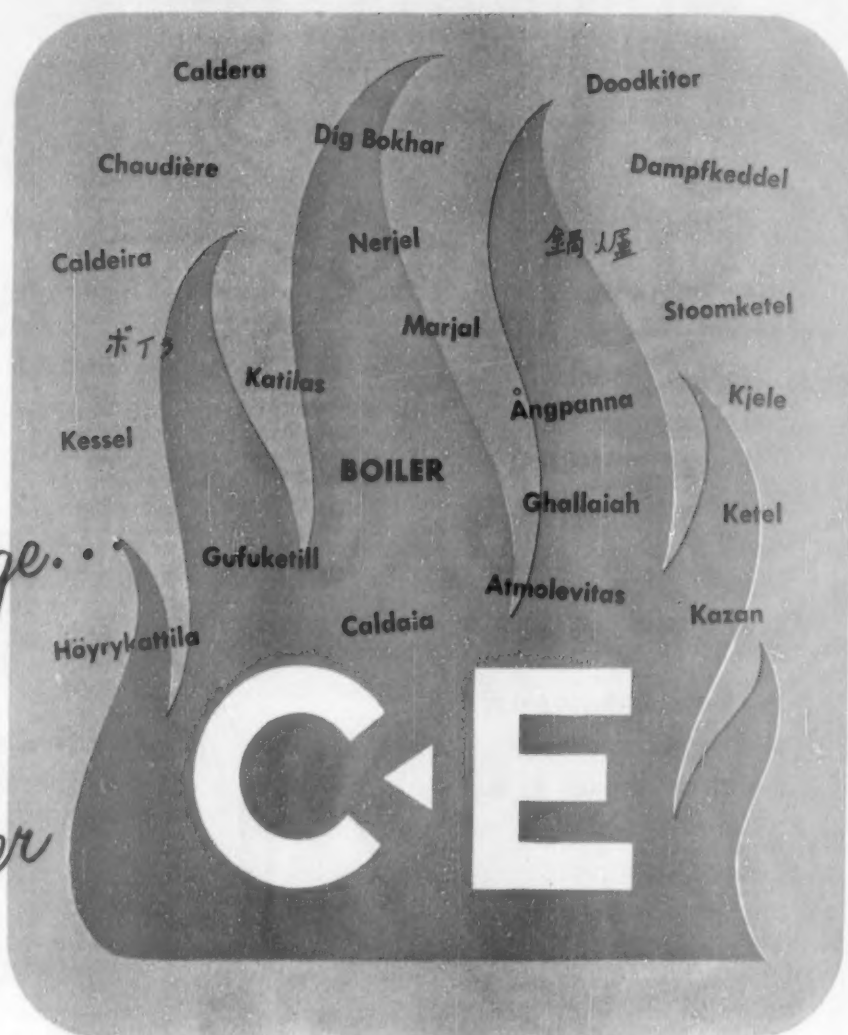
**U. S. mining industries**, particularly those concerned with lead and zinc, are still waiting for more details on the government's new, stepped-up stockpiling program (BW-Apr. 3 '54, p32). The announcement, made more than six weeks ago, touched off a spurt of lead and zinc buying. But now the boom has petered out, while everyone waits for further word from Washington.

**Aluminum requirements** for the military are shrinking. The third-quarter set-aside for defense, announced this week, will come to 15% of the total anticipated supply, as against 19% in the second quarter of this year.

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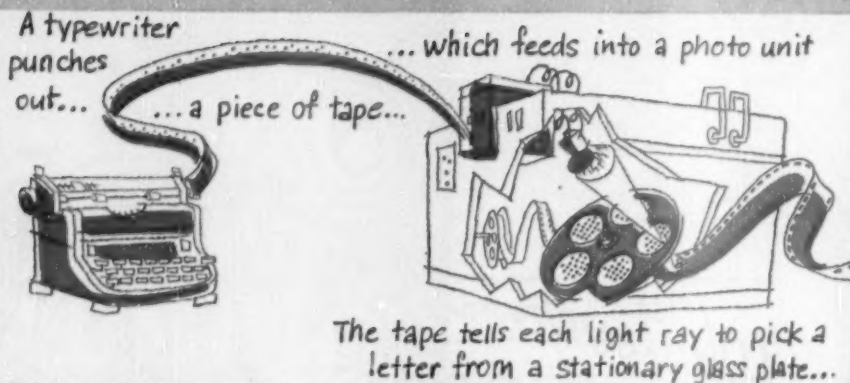
So whatever your steam requirements, you can select C-E Boilers with confidence that you are buying equipment which has achieved world-wide recognition.

# PRODUCTION

## Three New Ways To Set Type

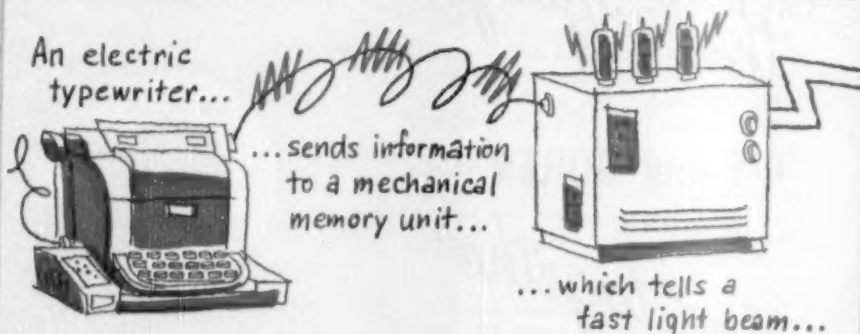
### COMING

**LINOFILM**—Just off the drawing boards, this new machine won't get into the print shop or newspaper until some time next year



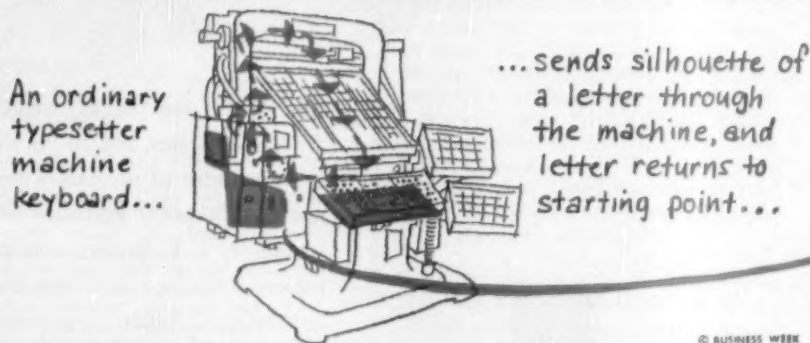
### STARTING

**PHOTON**—In a couple of weeks, the first machine of this type will go to work for a daily newspaper in Massachusetts



### AT WORK

**FOTSETTER**—A number of newspapers and print shops have this machine today. But it's not so radical a departure as its two rivals



© BUSINESS WEEK

## For Printing: A Step Beyond the

The sketches above are a picture story of the printing industry's effort to get away from hot metal.

To set type, each of the machines uses a camera and a strip of film instead of casting the letters in a mold, line by line. The new process is called photo-composition.

Its aim: to save costs and skills tied

up in present methods of casting and assembling type.

The idea is still new. Only a few printing shops and newspapers are yet dabbling with it, though more are scheduled to jump in during the next few weeks.

• **Three Approaches**—As the sketches show, the makers of the new typeset-

ting machines agree that the camera is the answer to the need for cutting composition costs. They disagree on the details of how the camera should be used. That explains the wide variation of ideas shown in the drawings.

The three machines are:

**Linofilm**, developed by the Mergenthaler Linotype Co. of Brooklyn.



# by Film ...



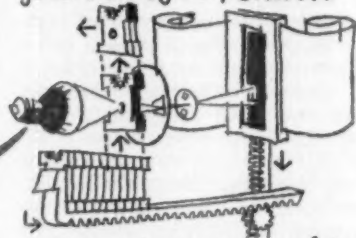
... project the letter  
onto film

... to shoot through  
a letter on a  
whirling disk...



...and projects  
the letter onto film

...after a beam of light  
goes through it, and...



... projects the letter on film

## Linotype?

Photon, developed by the Graphic Arts Research Foundation, Inc., of Cambridge, Mass. (BW-Jan.17'53, p58).

Fotosetter, a product of Intertype Corp. of Brooklyn (BW-Jul.19'47, p21).

• The Fotosetter—First to come along was the Fotosetter, and it looks more

like its ancestor—the metal-casting machine—than the other two do. It works like the metal-casting machine, too, except that it takes a picture of each letter instead of casting it in metal.

Intertype Corp. claims that this similarity is an advantage: Any compositor can sit down at a Fotosetter and go to work without special training. When he taps a key, a thin piece of metal called a matrix starts moving through the machine, just as in the metal-casting model. The matrix has a transparent letter inset in it; at the photographic unit, it pauses for a split-second while a beam of light makes a picture of the letter on a film. Then the matrix returns to where it started.

This process sounds slow. Actually, it happens faster than it can be described. Matrices whiz through the machine at the rate of eight per second. When the compositor finishes, he has a piece of film that is used to make an engraving.

Intertype has been working on its Fotosetter for about eight years, and the machine is being used in several print shops. Only in the last month, however, has the company persuaded a couple of daily newspapers to give the machine a real trial. Now the St. Petersburg (Fla.) Times is using the Fotosetter for most of its advertising copy. And the Milwaukee Journal, which claims to carry more advertising than any other U.S. daily, is testing the Fotosetter's usefulness in setting much of its advertising copy.

• The Photon—A more radical departure from old techniques appears in the Photon, which has been around for little more than a year. According to its developer, the Quincy (Mass.) Patriot Ledger will start using a Photon next month to set advertising copy. By July 1, seven others will be in operation in the Boston area—six in book printing houses, one in a composition job shop.

Development has cost the Graphic Arts Research Foundation about \$750,000, with only one Photon-set book and a few odd jobs to show for it. Yet some people in the printing industry are surprised it has come so far so fast. It looks complex, and skeptics thought it would take much more than a year to de-kink.

The Photon looks like a fancy piece of office equipment. Its keyboard is that of an electric typewriter; its brain is a memory unit. The letters—1,400 of them in 16 different type faces—are cutouts on a disk 8 in. in diameter. The disk spins eight times a second: On each rotation, a stroboscopic beam of intense light projects a letter.

The memory unit controls the justification (adjustment to full column width) of the lines. It remembers each letter



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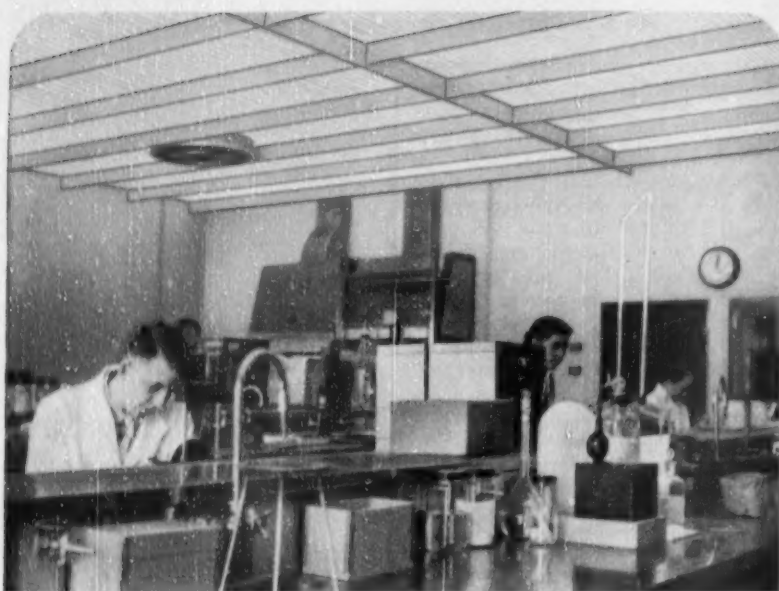


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John Deere Co.  
Douglas Aircraft Co., Inc.  
Filene's of Boston  
General Motors Corp.  
National Broadcasting Co.  
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A modern Acusti-Luminus Ceiling boosts production in any office or for any critical task—and it is ideal for laboratories and similar work areas.

**Its light is superior to daylight!** Evenly diffused by lightweight corrugated sheets of Lumi-Plastic. No shadow! No glare! Low brightness. Any intensity.

**Its soundproofing is excellent!** Noise-absorbing Acusti-Louvers may be hung at intervals below the Lumi-Plastic.

**The result: BETTER WORK!** In its quiet "luminous environment" employees see better, feel better, and do a better job. They get fewer headaches from eyestrain, show less fatigue, take less time off, and have more enthusiasm for their work.

**A solid "ceiling of light"!** Its clean modern lines hide pipes, ducts, cracks, and other eyesores. Labeled by Underwriters' Laboratories for installation under sprinkler systems.

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"... the trick: to find a metal that etches fast, and stands long press runs..."

PRINTING starts on p. 66

in a line, figures how wide it is and how much space to insert between words so that the line will be the right length. Line by line, it releases this information to the photographic unit.

Twelve lenses make it possible to project the letters in sizes as small as 5-point—about half the size of the type you are reading—or as large as 36-point, half an inch high.

• **Linofilm**—The newest of the three photocomposition machines is the baby of an old-timer. Mergenthaler Linotype got its start in 1896 by developing the first mechanical typesetting machine. Most typesetting equipment in composing rooms today is an outgrowth of that development.

Mergenthaler is scheduling production of its photocomposing machine, Linofilm, for next year. It will look no more like the old Linotype than the Photon does.

Like the Photon, the Linofilm uses a typewriter keyboard, and it projects letters on a piece of film. There the similarity ends, for Mergenthaler inserts another step between keyboard and film: a tape perforated by the operator and used to control the photographic unit.

As the operator flicks the keys, the letters are registered on the tape. The tape is torn off and fed into the photographic unit, which can be anywhere you choose to put it—next to the keyboard machine or in another city. Mergenthaler claims advantages for this split in functions: The shop needs only one photo unit to serve several keyboards (tape can be fed faster than an operator can punch a keyboard), and the tape can be proofread before it is filmed.

In the photo unit, Mergenthaler uses a disk-shaped mounting of five small glass plates, each bearing a different type face. This disk doesn't spin as in the Photon; it stands still while a beam of light lines up each letter and photographs it. To use other type faces not already mounted, you pull out one of the five plates and substitute a plate from your file.

• **Limitations**—Sponsors of photocomposition admit that their machines won't take over the print shops in a day or a year. They foresee the fastest progress in the fields of offset printing and rotogravure, which already use a photoengraving process. That's because the filmed type has to be photographed again and engraved on a metal plate before the presses can roll. News-

papers, which usually print from raised type, will be wary about adding this step.

The trick is to find a metal that can be etched faster, yet is strong enough to stand up in long press runs. Until that metal comes along, most newspapers will stay away from photocomposition for their news pages, where speed is vital.

The special metal may not be far away, though. For five years, Dow Chemical Co. of Midland, Mich., and the research department of the American Newspaper Publishers Assn. have been working on magnesium alloys that may do the trick. Last summer, Dow Chemical announced a metal that can be made into a halftone engraving of a picture in 10 min. instead of the standard 1 hr. A few newspapers are using it. The next step is to do the same for the type.

Clarence M. Flint, research director of ANPA, says it's now possible to assemble a full newspaper page, including text and photos, and engrave it in about 12 min. And the typesetting would be at least as fast by photocomposition as by conventional methods. So the new process—photocomposition plus etching—comes close to the speed and economy of the old metal process.

• **Newspapers' Problem**—Of course, newspapers have other problems that don't apply to such people as book printers. Primarily they need flexibility. They need to be able to make quick changes from edition to edition, to slap news flashes on the front page with the briefest possible press shutdowns.

This need for flexibility doesn't apply to other print shops—usually. A shop that's printing a book sets the type once and lets the press run go right through. And photocomposition is a natural for offset and gravure. In these processes, it actually saves a step instead of adding one, as in letterpress printing. The filmed type is used directly in making up the positive that is photographed in making the printing plate or cylinder.

• **Labor's View**—The photocomposition process eliminates a lot of handling of lines of metal type and of heavy page forms. It cuts down on the labor needs of composing rooms. So the attitude of organized labor is an important consideration.

This week, the Indianapolis headquarters of the International Typographical Union issued a 4-page booklet on photocomposing machines, describing the technical features of each for the information of ITU members. The union notes the experience of a shop in Niagara Falls, N. Y., which cut its composing room work from 85 men to nine men. The moral: Composing room workers must master the new technique if they are to keep their jobs.

ITU says it will continue to claim



## A chemist's vocabulary is strictly limited

• It's child's play for a chemist to use polysyllabic words. Yet, in some respects, his vocabulary is strictly limited. It just doesn't include words such as "hopeless" . . . "absurd" . . . "impossible." The many miracles that emerge from the mysterious world of chemistry are mute testimony to this fact.

By "doing the impossible," the chemical industry has created life-saving drugs. It has made antifreeze that doesn't boil away. It has produced plastics whose uses are apparently endless. And the chemical industry has come through with synthetic materials that often go nature's products one better.

To develop a new product, the chemical industry carries on relentless research. But it doesn't stop there. It then finds a way to mass-produce the new

product, so that its cost will not be prohibitive. Phthalic Anhydride, the chemical that makes possible today's quick-drying paints and enamels, is a good example of this. When first produced, phthalic cost \$2.85 a pound; within two years chemical engineering knowledge had cut the cost to 40¢.

This week, as the nation observes Chemical Progress Week, Koppers congratulates the entire chemical industry on its brilliant achievements. We also have good reason to be proud of our own chemists, and of the many contributions they have made to our country's welfare.

*Koppers produces many synthetic chemicals, including Styrene Monomer, Polystyrene, Phthalic Anhydride, Divinylbenzene, Di-tert-butyl-para-cresol, and Resorcinol.*

### KOPPERS COMPANY, INC.

Chemical Division, Dept. BW-5154, Pittsburgh 19, Pennsylvania



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How to get off to a

# good start

with your Group insurance program

**I**F you are considering a Group insurance program, it will pay you to take advantage of The Travelers special planning service.

Ask your Travelers agent or broker to arrange a meeting for you with a Travelers Group specialist.

This Group insurance expert will first make a survey of your requirements. His suggestions to you will be based upon this survey and his knowledge of local and industry practices.

And when the plan has been formulated, he will assist you in informing your

employees of the program's benefits.

Claims under your Travelers Group insurance plan will be handled and paid promptly by salaried Travelers representatives working in your community.

The Travelers has 239 Claim offices in the United States and Canada, located strategically across the continent. This

network of offices assures you of personalized and localized service to care for your employees wherever misfortune may overtake them.

If you'd like a Travelers Group specialist to study your Group insurance requirements, just fill out the coupon below, attach it to your letterhead—and mail.

<p>YOU WILL BE WELL SERVED BY</p> <p><b>The Travelers</b></p> <p>HARTFORD 15, CONNECTICUT</p>  <p>SPECIALIZING IN EMPLOYEE BENEFIT PLANS FOR OVER FORTY YEARS</p>	<p>I'd like a Travelers Group specialist to make a study of my Group insurance requirements.</p> <p>NAME .....</p> <p>STREET .....</p> <p>CITY .....</p> <p>STATE .....</p> <p>PCW-115-12</p>
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jurisdiction over the composing process, up to the point where plate-making begins. The union does not damn the technique, and it shows no panic over the challenge to established methods.

"It is not believed that composition by photographic means will completely displace the hot-metal process," says the introduction to the booklet. "But it must be recognized that phototype-setting does have a real place in the industry."

The new developments, says ITU, "are introducing what can be termed a new era in the printing industry—an era which may possibly prove to be as significant as the one which witnessed the introduction of the linecasting machine."

## PRODUCTION BRIEFS

**Short on metal-working facilities?** Jeffrey Mfg. Co., Columbus, Ohio, will make more than 1-million sq. ft. of space available to companies that want to make various products, but don't have the facilities to produce them. You can use its new special products division for foundry work, pattern making, lathe work, milling, plus a number of other operations.

**A new process** for the manufacture of aluminum-coated wire has been announced by American Chain & Cable Co., Inc., Bridgeport, Conn. The company says that it provides accurate control of the thickness and weight of the coating, is so ductile that the wire can be drawn down to any thickness.

**Auto production** is faster at Ford since the company began using a new material for making die models and patterns from which the steel production dies are formed. The material is laminated mahogany board impregnated with synthetic resins. It replaces plain mahogany board, cutting down swelling, shrinkage, and moisture absorption.

**To reduce** the time it takes to inspect aircraft cable assemblies and wiring systems, Lockheed Aircraft Service, Inc., a subsidiary of Lockheed Aircraft Corp., Burbank, Calif., has developed a testing console that can check a B-29's system in 15 min. The same job used to take four hours.

**A new chemical milling method**, developed by North American Aviation, Inc., Los Angeles, removes unwanted metal from complex parts, needs no machinery to do the job. The metal to be removed is left exposed; the rest of the part is masked with a special coating. Then the entire part is submerged in an etching solution.



## Wastes no money while it waits— Frigidaire Flash-O-Matic Water Cooler

**Saves on operating costs!** Uses almost no current when water is off. Yet the Flash-O-Matic Water Cooler is always ready to furnish a perfectly cooled drink when you touch the control pedal.

**Passes the tough "chill" test!** Flash-O-Matic action comes through with flying colors! Hundreds of glasses of water were drawn, hour after hour, and the last glass proved just as refreshingly ice-cold as the first!

**No spurt! No sputter!** Automatic regulator tames water sys-

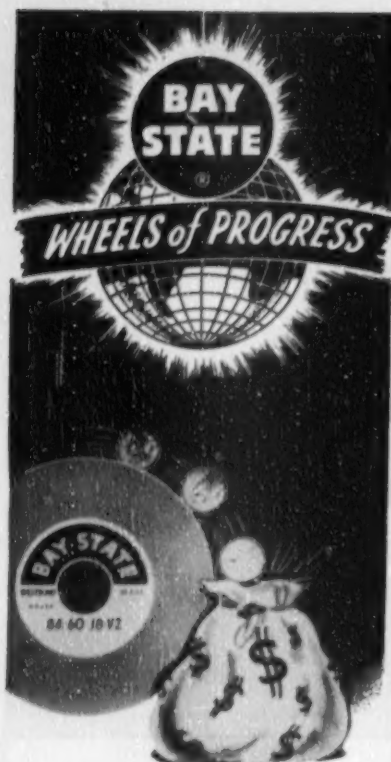
tem pressure changes. Stream never surges or dies out. Operates electrically...no mechanical linkage. Powered by Meter-Miser, warranted for 5 years.

Also available: bottle-type water coolers with or without refrigerated compartment—need no plumbing, plug into any 115 volt outlet. For full details look for your Frigidaire Dealer in the Yellow Pages of your phone book. Or write: Frigidaire, Dept. 2267, Dayton 1, Ohio. In Canada, Toronto 13, Ontario.

## Frigidaire Water Coolers



**BUILT AND BACKED BY GENERAL MOTORS**



**14% SAVINGS**  
with **8A**

### Vitrified Bonded Grinding Wheels

Here is still another illustration of BAY STATE'S progressiveness.

These wheels are definitely better for those sensitive grinding operations necessary for proper maintenance of cutting tools, surfacing modern alloy steels, etc.



Send for literature which includes listing of stock wheels with proven specifications.

**BAY STATE ABRASIVE PRODUCTS CO.**  
Westboro, Mass., U. S. A.

Branch Offices and Warehouses:  
Chicago, Cleveland, Detroit, Pittsburgh  
Distributors: All Principal Cities  
In Canada: Bay State Abrasive Products Co.  
(Canada) Ltd. Brantford, Ont.

## PRODUCTION PATTERN

### The Worker's Private Woes

**D**OCTORS WERE kicking around a new term at the annual meeting of the Industrial Medical Assn. in Chicago. The word: constructive medicine. It's a catchy phrase, and one that will probably stir a lot of bitter debate in the next few years.

In a nutshell, constructive medicine offers a broad medical-psychological program as a solution to the problem of how to keep the rank and file happy and productive. In doing so, it involves industry deeply in the worker's personal problems, worries that more often than not have roots outside the plant gates. The aim: to ferret out little things before they get a chance to develop into disabling physical handicaps or plantwide work stoppages.

**T**HE FIRST reaction of many businessmen is that it's none of their business that the sales manager has ulcers, that the punch press operator has a boy crippled by polio. Why should industry be concerned?

The fact, as many companies have learned, is that these personal worries do keep a worker's mind off his job and affect the quality of what he turns out.

The effects show up even more clearly in the absenteeism rate. It comes as something of a shock to most people that industrial injuries, the kind covered by Workmen's Compensation, cause only about 10% of the total loss of productive time in most plants. Most of the time lost can be traced to non-occupational causes.

Until recently most of industry's protective measures were directed only at the 10% occupational loss. To keep this expense as low as possible, industry has gone all-out on safety.

However, since the 1930s and particularly the 1940s, the trend has been for industry to put more emphasis on the nonoccupational losses. Group life insurance came first. Then came insurance against loss of wages because of illness or hospitalization.

**I**NDUSTRY'S concern over the worker's attitude and effectiveness is the latest addition. Company after company has come to realize that psychosomatic ailments

can be as disabling as physical accidents, so they've called in psychologists to set up human relations programs.

While safety programs and group insurance have now been widely accepted as good business, most executives tend to look on human relations programs as largely nonsense. Thinking back to their earlier days, they recall no such concern over their well-being on the part of the boss. They fail to realize that they themselves are partly responsible for changes that have raised new worker problems.

Look at it this way. Fifty years ago a man followed in his father's footsteps. There were clearly defined paths for him to follow. Black was black and white was white. The worker used his hands to produce a finished product and he could take satisfaction in his handiwork.

Of course, you can't blame industry for all the psychosomatic ailments around today. We've gone through two wars, a police action, a depression, and a rolling adjustment. Life is faster, and the tensions are greater. But many psychologists feel that it's the growth of the machine and mass production that underlie today's rash of job dissatisfaction.

Today the worker is separated from the finished product by machines. He is not able to feel the same satisfaction in seeing a job well done.

**H**ERE is where the proponents of constructive medicine think it comes in. It integrates all the previous medical and human relations programs under the direction of an industrial doctor. Small plants share such a doctor. Large ones set up a full-time staff on this basis: For each 50 employees, you need about one nurse-hour a day and one doctor-hour a week.

The big problem for industry is finding the right doctor. Specifications are exacting. He has to know his medicine and he has to be a good listener when it comes to sob stories. He has to be an intermediate between worker and management without looking like a company spy. In short, he has to be a combination of Dr. Christian of the movies and an Army chaplain.



# GAIR can help

## MERCHANDISE YOUR PRODUCT



With Gair display stands working for you in retail outlets, it's like having a company salesman in every store. The mass presentation of your product commands the attention of passing shoppers . . . the constant repetition of your sales message stimulates the urge to buy.

Do you want to introduce a new product? Pep up the sales of a standard item? Push a combination deal? Gair display stands will help.

Designed for long and useful promotional life,

these stands are sturdily constructed of corrugated board and are attractively printed. For greatest visual impact, you can have your sales story printed in more than one color on a contrasting background color of your choice.

Check with the Gair plant nearest you to learn which of the many styles will make a perfect setting for your product. Learn, too, how Gair's assured supply source, design ability and delivery service help give you the best in corrugated display aids.

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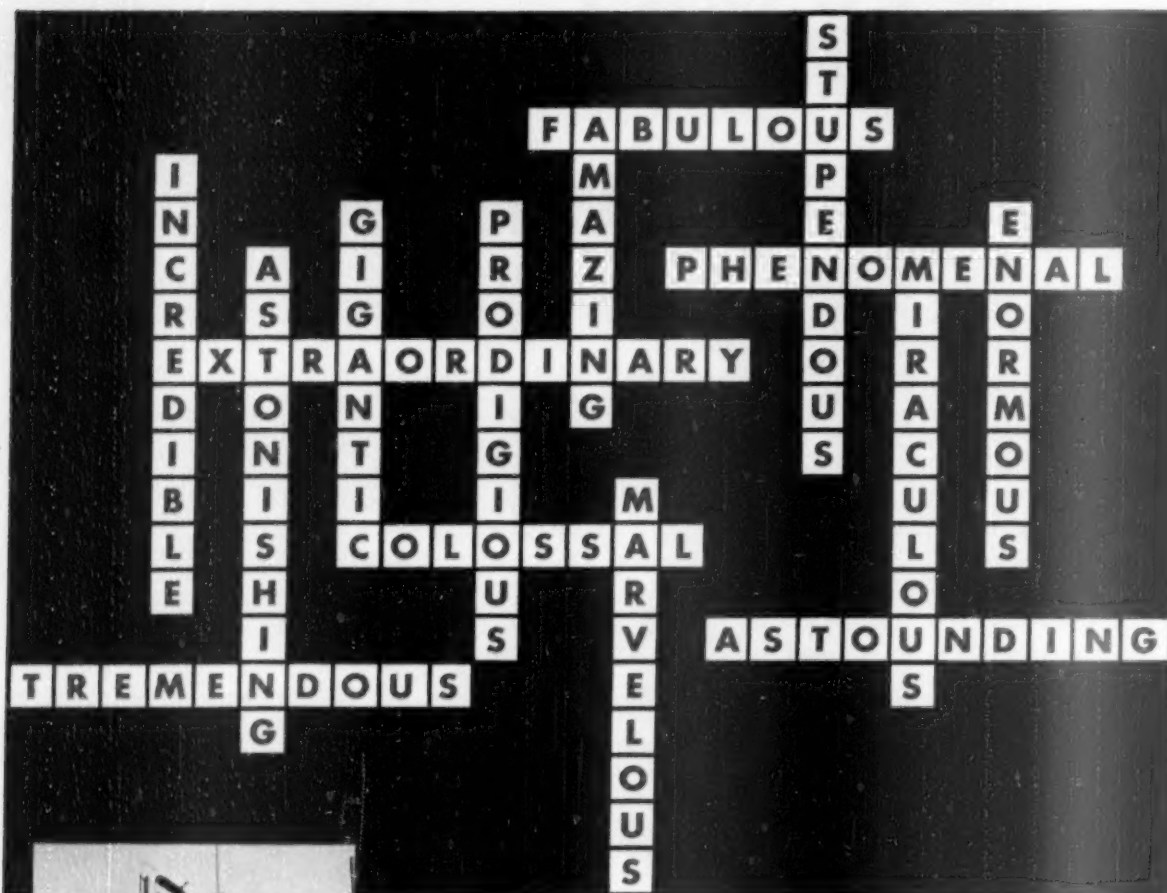


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# Chemical Progress Week . . . May 17-22



## What words would you use?

Strong as they are, these words seem to fall short of describing the progress of the chemical industry. For the past twenty-five years it has been the nation's fastest growing industry. Since 1939, its sales have more than quadrupled to an estimated \$20 billions in 1953!

But superlatives are really put to the test in attempting to translate chemical progress into terms of its benefits to mankind. Who can place a value on the lives saved by antibiotics and other medicinal chemicals? And when you think of such products as plastics, synthetic fibers, pigments, solvents, agricultural chemicals, synthetic rubber and dyes, you realize their contributions to better living are inestimable.

In marking Chemical Progress Week, Columbia-Southern is proud to be a part of America's chemical industry, and to salute the many fine companies which together have made these achievements possible.



### COLUMBIA-SOUTHERN CHEMICAL CORPORATION

SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY  
ONE GATEWAY CENTER • PITTSBURGH 22 • PENNSYLVANIA



CHLORINE, ALKALIES AND RELATED PRODUCTS • OFFICES IN PRINCIPAL CITIES

## NEW PRODUCTS



VERSATILE. Burroughs' new electronic calculator does varied chores. It's . . .

## No Genius, But It's Smart

Relatively simple and easy to operate, Burroughs Corp.'s new thinking machine falls halfway between the huge, costly electronic devices and the simple office-type machines.

Last week in Detroit, the young woman pictured at the machine above punched out correct answers to three entirely different and complex problems:

- She figured out a batch of tax assessments for the Detroit assessor's office—in one-third the time a regular desk calculator would have taken.
- She calculated the rate of climb and the path of flight of a guided missile.
- She determined the power capacity of a 13-dam hydroelectric system.

All three problems were solved in a few hours, which included the time a methods analyst took to feed necessary information into the electronic calculator. Once the operator sat down at the keyboard, her job took just a few minutes. With ordinary desk calculators, the chances are that some of the problems wouldn't be solved yet.

• **Debut**—The new machine, Burroughs Corp.'s E101, won't be on the market for a few months. In fact, this is the only one Burroughs has built so far. But the Detroit test was Burroughs' way of taking the jump into the electronic business machine field. Within a year, it expects to be producing about 10 of the calculators every month, each with a \$30,000 price tag.

As electronic calculators go, that's dirt cheap. There are smaller and cheaper computers around, but these are analogs—special purpose machines. Burroughs' machine is a digital, which means that it can do lots of different kinds of jobs. You might use it in the payroll department one day, wheel it out to the lab for some scientific calculations the next.

• **How It Works**—The tax assessment problem solved in Detroit shows how swiftly the machine pops out with answers to complex problems. For this sort of chore, the first step is for a methods analyst to arrange the pins on the righthand side of the keyboard; in effect, he tells the machine what to do once the operator starts punching the keys. The arrangement of the pins—it's different for each problem—sets up formulas inside the machine. Later on, the machine will use those formulas to make sense out of the numbers fed in by the operator. The setting-up step takes the engineer about three hours. For the tax-type problem, he feeds in five formulas—one for assessed valuation, one for the percentage rate of obsolescence, etc. These formulas will be constant for each set of figures fed in by the operator.

The second step is the operator's. She

## Uncle Sam finds \$90,000 in warehouse!

There's a huge warehouse run by General Services Administration that's saving us taxpayers \$90,000 a year on materials-handling costs.

The secret is a new 1¼-mile cast-er trailer materials-handling system moving 105 feet a minute using cast-er stock selector trucks, and powered by only three 10-hp motors.



### Texas does it like this!

In the vast Dallas warehouse of Central Freight Lines, a powered cast-er conveyor line whisks 6 million pounds of freight a day in and out. Floor trucks here have high-efficiency sealed Bassick casters to help them go places.

### Caster lubricant sealed in

Bassick "3D99" sealed casters virtually eliminate lubrication problems while protecting swivel and wheel bearings from dirt and water. Lubricants cannot get out. This protects rubber wheel treads and eliminates hazards due to greasy floors.

### GET UP TO 30% OFF!

Materials-handling accounts for 30% of total manufacturing costs. Whittle away at that 30% with a fast, economical handling system equipped with smooth-rolling Bassick casters. Write for facts to THE BASSICK COMPANY, Bridgeport 2, Conn. In Canada: Belleville, Ont.



**Bassick**

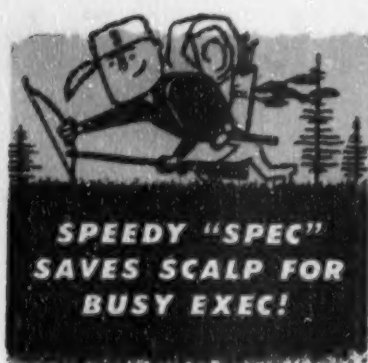
A DIVISION OF



MAKING MORE KINDS OF CASTERS... MAKING CASTERS DO MORE

75 YEARS OF CASTER LEADERSHIP





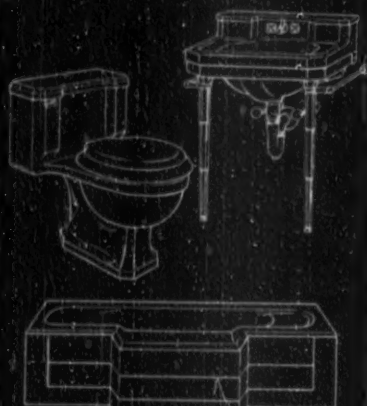
A pioneer in transporting goods swiftly, and safely, Speedy "Spec" knows how vital it is for a busy executive to keep a step ahead of competing warriors hot on the trail. Today, your business has to have its products delivered quickly—and undamaged—or lose customers to firms who can. That's why SPECTOR, with expert crews operating modern trucks out of 17 strategically-located terminals, can save your scalp by assuring you fast, safe, delivery!

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Plumbing fixtures  
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## ELIER

A subsidiary of the MURRAY Corporation of America

feeds in variables, using the keyboard in the center of the machine. In the tax problem, there are just two: year of purchase and size of property. Also, she feeds in specific figures for each property. All of these figures are stored in a memory unit until the operator presses the key that tells the machine to solve the problem.

Then the actual computation begins. The pins that had been set up by the engineer tell the machine which formulas to apply to each set of figures in the memory unit. Just 12 sec. from the time the operator actually started to punch the keys, a tax assessment card pops out of the machine. In that 12 sec. somebody's real estate tax has been figured out and his card is ready to be sent out. Burroughs estimates that three machines could do the work of 20 people in a tax office.

• **Training**—The operators for the machines wouldn't have to be specially skilled, Burroughs says. The girl who solved the three problems last week had had less than two hours of training on the E101. As Burroughs sees it, the operator of almost any existing business machine could be put on E101 without going to training school. Of course, a skilled technician will be needed to set each problem up—a company engineer or a Burroughs man. But once a new problem has been set up, it's easy to make a copy of it, store it away. The next time the same problem comes along, you know where to put each pin.

• **Simplicity**—Burroughs says the key to E101's small size and relative simplicity is that it is not completely electronic. It has 163 vacuum tubes, hundreds of germanium diodes and printed circuitry, plus some electromechanical devices. In contrast, the other, more complex devices have thousands of tubes, with relatively fewer mechanical devices to make them work. Of course, these big machines can handle problems that would stump E101, but Burroughs isn't out to make a low-cost genius. Burroughs' president, John S. Coleman, says E101 is designed to bridge the gap between mechanical calculators and large electronic digital computers.

Burroughs claims that E101 is the smallest digital computer now ready for production. The biggest market is expected to be in banks, insurance companies, governmental agencies—plus the company that wants to shuttle its machine between the office and the lab.

Burroughs is frank about bugs. It doesn't expect the first models to be pieces of perfection. So, instead of selling them, it will probably work out leasing arrangements with the users. That way, it will be able to keep a close watch on them during the first critical months.

• **Source:** Burroughs Corp., 6071 Second Ave., Detroit, Mich.

## To Cut Mar. 15 Chaos

If you have trouble keeping track of tax-deductible expenditures made during the year, there's a kit on the market that may help. It's a leather-bound, loose-leaf binder with 13 manila envelopes inside it. You put your canceled checks in the envelopes—each in its proper place: one envelope for checks that show security purchases and sales, one for house expenses, one for contributions, etc. At the end of the year, you have a record of everything you spent. For cash payments, you use a special form that comes with the kit. It shows what you spent, when, for what. Price: \$5.00.

• **Source:** National Blank Book Co., Holyoke, Mass.

## NEW PRODUCT BRIEFS

A new metal powder that can electrify any liquid or moist material so that it yields both alternating and direct current has been announced by Chemalloy Associates, Santee, Calif. If mixed with milk, the powder reveals different electrical responses for different butter-fat contents.

A combination furnace-clothes drier has been introduced by Herbst Products Co., Cleveland 3. The drier sits on top of the furnace at chest height, filters the air before it gets to the clothes, then blows the moisture through a vent extension to the outdoors.

A new high-strength conveyor belt that makes it possible to haul 1,000 tons of ore or coal per hour at a speed of 600 ft. per min. has been introduced by U. S. Rubber Co.

Magnetic "memories," which raise the speed and reliability of high-speed automatic computers, have been developed at Massachusetts Institute of Technology. One such unit can store a piece of information in less than eight-millionths of a second, and can give it back to the machine again just as fast.

Cheaper and better: A new material, which is sensitive to light, is said to simplify gravure printing, improve reproduction quality, and reduce color printing costs. Called Rotofilm, it was developed by du Pont Photo Products Dept. and Alco Gravure, New York.

For the outdoor barbecue, the Anthracite Equipment Corp., Wilkes-Barre, Pa., has introduced a hard coal briquet, neatly wrapped in a cardboard container. You throw container and all into the fireplace and put a match to it, without ever touching the coal.



# Recordak Microfilming

keeps track of every shipment . . . saves \$5000 per year

Bookkeeping used to be the Moledzky Transportation Company's biggest headache—city traffic included.

This firm, one of the oldest serving New York's garment center, picks up merchandise in hand-pusher trucks and forwards it by motor truck to stores, piers and other terminals. Records are exchanged at every step . . . and the bookkeeping department must keep tabs on it all. This was a tedious and costly task when information was transcribed by hand.

## How a \$600 per year investment pays off

The simple act of dropping the manufacturer's shipping ticket and the corresponding delivery receipt into a Recordak Microfilmer ended Moledzky's big headache. No check-sheets to keep . . . no transcription errors . . . no signatures misinterpreted. One clerk handles over 3,000 tickets and receipts per day and still has hours left for other work. Reference is much faster, too. Moledzky's film records are filed at the finger tips . . . ready for immediate review in a Recordak Film Reader.

Total microfilming costs are less than \$600 per year—the savings \$5,000. As the Moledzky Transportation Company sums it up: "We give our customers fast, accurate

service at lowest possible cost, and a Recordak Systems Man showed us how."

**Can Recordak Microfilming cut your costs?** In all probability, yes! For this truly amazing process is now simplifying routines for 65 different types of business . . . thousands of concerns. And the chances are some of these routines are similar to yours. *You should see a Recordak Systems Man soon!*

Write for full story including facts on the line of Recordak Microfilming designed for all requirements, all budgets. Recordak Corporation (Subsidiary of Eastman Kodak Company), 444 Madison Avenue, New York 22, N. Y.

## **RECORDAK**

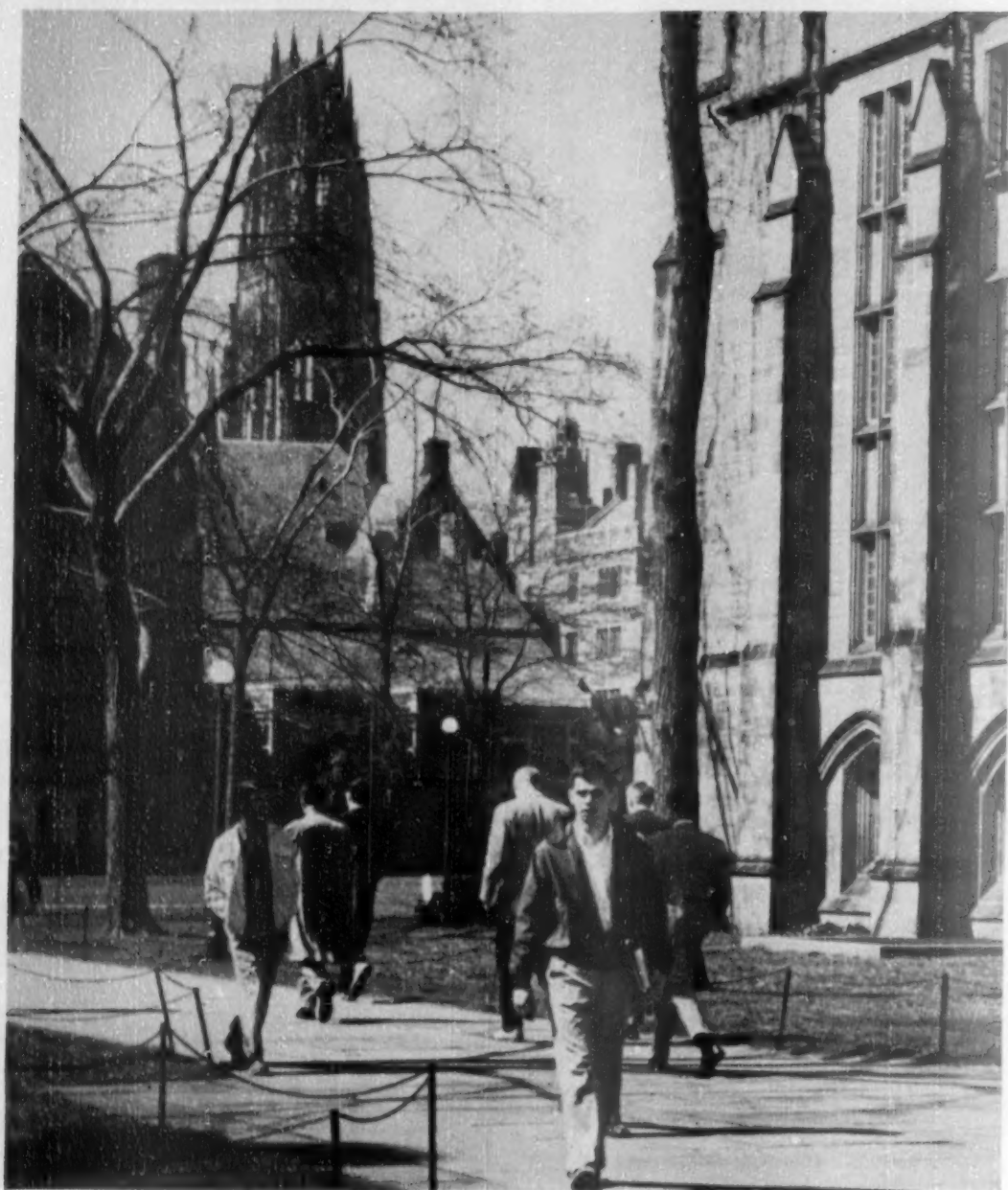
(Subsidiary of Eastman Kodak Company)

**originator of modern microfilming—  
and its application to business systems**

"Recordak" is a trade-mark



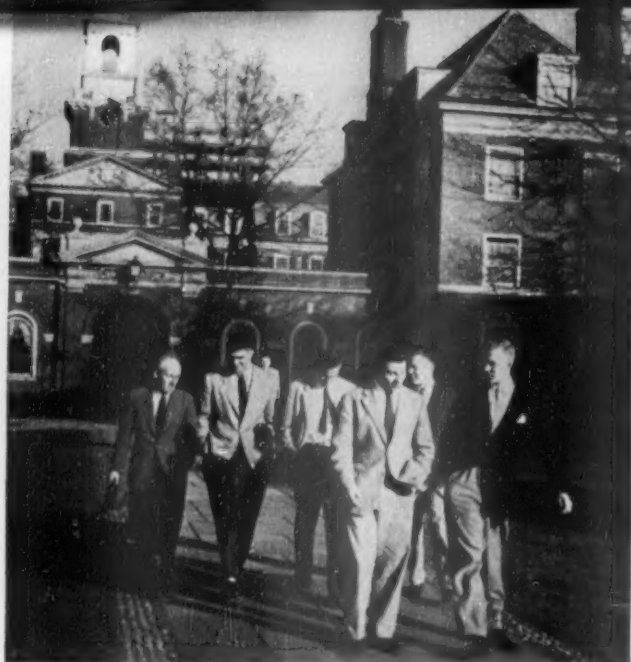
# EDUCATION



## YALE UNIVERSITY

Its liberal arts education today is a quite different one from 20 years ago. But the change is not Yale's alone. It's part of an over-all movement that is reshaping the experience that a man takes out of college into the business world.





**SCHOLARS OF THE HOUSE:** Under Richard Sewall (extreme left) who shepherds the scholars program, this handful of exceptional seniors has chance to freewheel.



**DIRECTED STUDIES** is a disciplined plan for first two years work. Survey project (above) comes in sophomore year, involves city poll. This time it is on FEPC.



**SEMINARS** for sophomores were started with grant in 1952. This one, a philosophy course, meets one evening a week in Pierson College.

## New Sell for the Liberal Arts

Roughly 60 years ago, a young Harvard man named George Santayana said some things about Yale that were unusual on two counts: They were printable; and they proved to be practically timeless, as the years went by.

"Nothing could be more American [than Yale]," Santayana wrote in 1892. "Here is sound, healthy principle but no overscrupulousness, love of life, trust

in success . . . a democratic amiability, and a radiant conviction that there is nothing better than oneself.

"No wonder all America loves Yale," Santayana concluded, "where American traditions are vigorous, American instincts unchecked, and young men are trained and made eager for the keen struggles of American life."

• Phase II—Within the next few weeks,

some 900 of these young men, eager or not, will be tossed into the struggles—and into Phase II in the life of a Yale man. To a surprising degree, the class of 1954 will fit the description that poet-philosopher Santayana wrote more than half a century ago. "Yale, thank Heaven," the old graduate is apt to sigh, "is still old Yale."

Only it isn't, quite.



**Yale's Griswold: If the arts are in disrepute . . .**



**. . . the colleges are partly to blame . . .**



**. . . the elective rebellion was let run wild.**



**THE BIG LECTURE**, once the platform for the eloquence of William Lyon Phelps, is giving way now to smaller discussion groups. This is one of the biggest lecture classes

## Yale Tightens the Reins in

The social character of Yale—its enthusiasm, conformity, its love of tradition—they have changed little through the years. (Yale, it has been said, is the only place where a phrase like For God, For Country, and For Yale could escape being looked on as the greatest anticlimax in the English language.) But its educational ways have changed a lot—not just since the nineties, but since the thirties and forties.

In the past 10 years, a new approach to the liberal arts and their teaching has been taking shape in American colleges, and its outlines show plainly at Yale. The class of 1954 felt some of the effects of the change. The class of 1960 may feel more of them—depending on whether some highly controversial proposals made last fall are put into practice.

Regardless of the future, though, this fact stands now: The Yale man of today takes away from New Haven a quite different educational experience from the one his father carried off. And this is important—to the fathers of the

sons, and to the businessmen who hire the sons.

### I. Slow Sales on the Arts

What has happened to the liberal arts at Yale? Why and how have they changed?

Viewed broadly, Yale is simply doing what others are doing. Its approach is its own. But the problem under attack is the same one that other universities—notably Harvard, Columbia, Chicago—and some of the smaller colleges have been trying to deal with.

It's a problem, in a way, that an auto manufacturer might have to face. A word-of-mouth campaign starts running down his new model. "It's nice," people say, "but I wouldn't want to take a long trip with it. Doesn't give me the performance I need." Suddenly, sales begin to drop off. The manufacturer tries more advertising; it doesn't work. Finally, he has to face up to it: Something's wrong. Better fix it.

• **Something Useful—Roughly**, this i

# LOCATE YOUR PLANT *near America's Most Modern Port* **LONG BEACH, California**

## Industry Profits from a Better Harbor

Modern industries, seeking the best in efficient sea, land and air transportation, are establishing plants in the industrial area surrounding the Port of Long Beach.

In the center of industrial Long Beach is its Harbor, which has developed even more amazingly than the growth of the city. Only ten minutes from the open sea, the Port has many modern facilities for serving industries, such as the world's largest clear-span cargo transit shed, the world's longest pier, America's first shore-based harbor radar installation, to mention only a few. Industry, too, agrees that the Port of Long Beach is indeed America's Most Modern Port.

Three transcontinental railways, plus an inter-city electric railway, also serve the area. The modern, city-owned airport provides transcontinental air service. Over 2100 common carrier truck lines service Long Beach over the ever-expanding network of freeways.

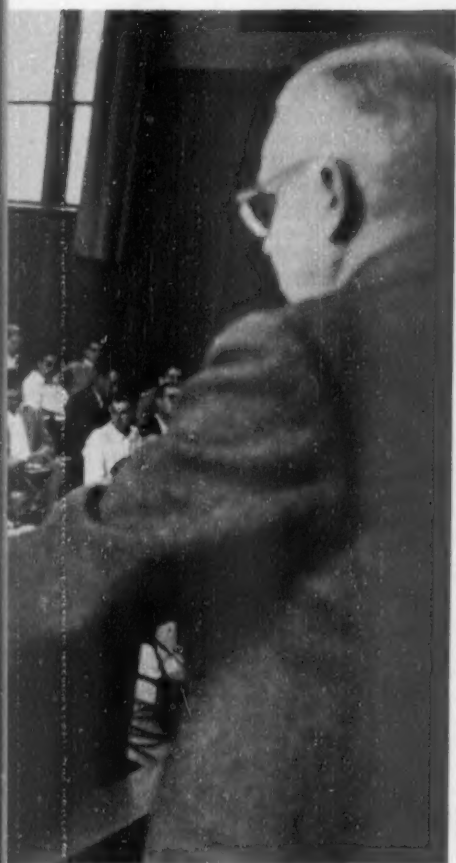
## Other Industrial Advantages

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still operating—Ralph Gabriel's popular American Thought and Civilization.

## Liberal Arts

what's happened to the liberal arts in the U. S. Slowly, but steadily, since the thirties, they've stopped selling. "Take something that will help you in business," a father tells his son. "Don't waste your time on Latin and Greek."

Yale's president, a lean, restless, 48-year-old man named A. (for Alfred) Whitney Griswold puts the movement in glacial terms: The liberal arts, he says, "are disappearing under a layer of vocational and other substitutes like the landscape in the ice age, only this glacier reaches from coast to coast."

• **Refurbishment**—By the end of World War II, several universities—Yale among them—had come to the unpleasant conclusion that others have reached since: Something was wrong with the liberal arts education.

There was much soul-searching, behind doors and in published reports. "How can we improve what we teach so that it truly wakens and develops a man's mind?" the educators were asking. Their answers formed the basis first for experiments, and later for



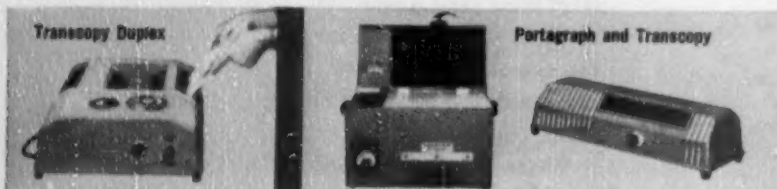
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sweeping changes in curricula and reorganizations.

At schools like Yale, all this has produced a definite rejuvenation in the liberal arts. There is a stronger belief than ever in John Stuart Mill's dictum that "men are men before they are lawyers or physicians or manufacturers; and if you make them capable and sensible men they will make themselves capable and sensible lawyers or physicians." But whether belief, and what Yale has done, is enough to halt a glacier is still a question.

## II. Plain, Solid Fare

Yale may show flash on the football field, but its reputation has never been one of razzle-dazzle in the classroom. For years, it has stood as a symbol of good, conservative American education. It has changed along with the others, but it has usually waited for the others to change first.

Santayana said that, in many ways, Yale was what Harvard used to be. And there is some truth in that, quite apart from the fact that Yale was founded (in 1701) by 10 Congregational ministers, nine of whom were Harvard men.

Until 1884, Yale stuck doggedly to a time-honored and almost completely prescribed program of studies. The dominant force was the church, the Congregational Church. Not until 1899 did a layman—economist Arthur Twining Hadley—take the president's chair and break a string of 12 clerical presidents.

For almost 15 years, Yale stood unmoved while Charles Eliot of Harvard, the champion of the elective movement, preached the new gospel of educational laissez faire. But in 1884, it swayed. Under pressure of a faculty attack led by Professor "Billy" Sumner, Yale put one-third of its courses on an elective basis.

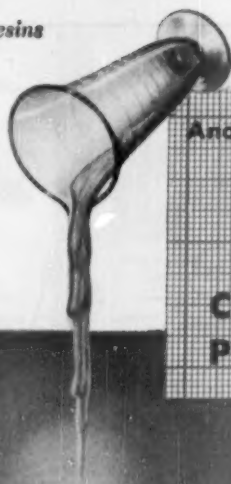
• **The Pendulum . . .**—For 20 years after, the voice of Eliot was heard above all else. By 1904 Yale, which was now officially a university with Yale College as its undergraduate liberal arts school, had just about eliminated all absolute course requirements.

But that was as far as it went. Gradually, Yale began to back away from complete cafeteria-style education. It looked for ways to neat up the chaos, to work a compromise between freedom and restraint. The device it singled out was alternative or group requirements; the student had to take one or more courses from several groups of studies—the natural sciences, say, the modern languages, history. By World War I, these group requirements made up about three quarters of the whole.

The twenties brought a non-Yale man—James Rowland Angell—to New

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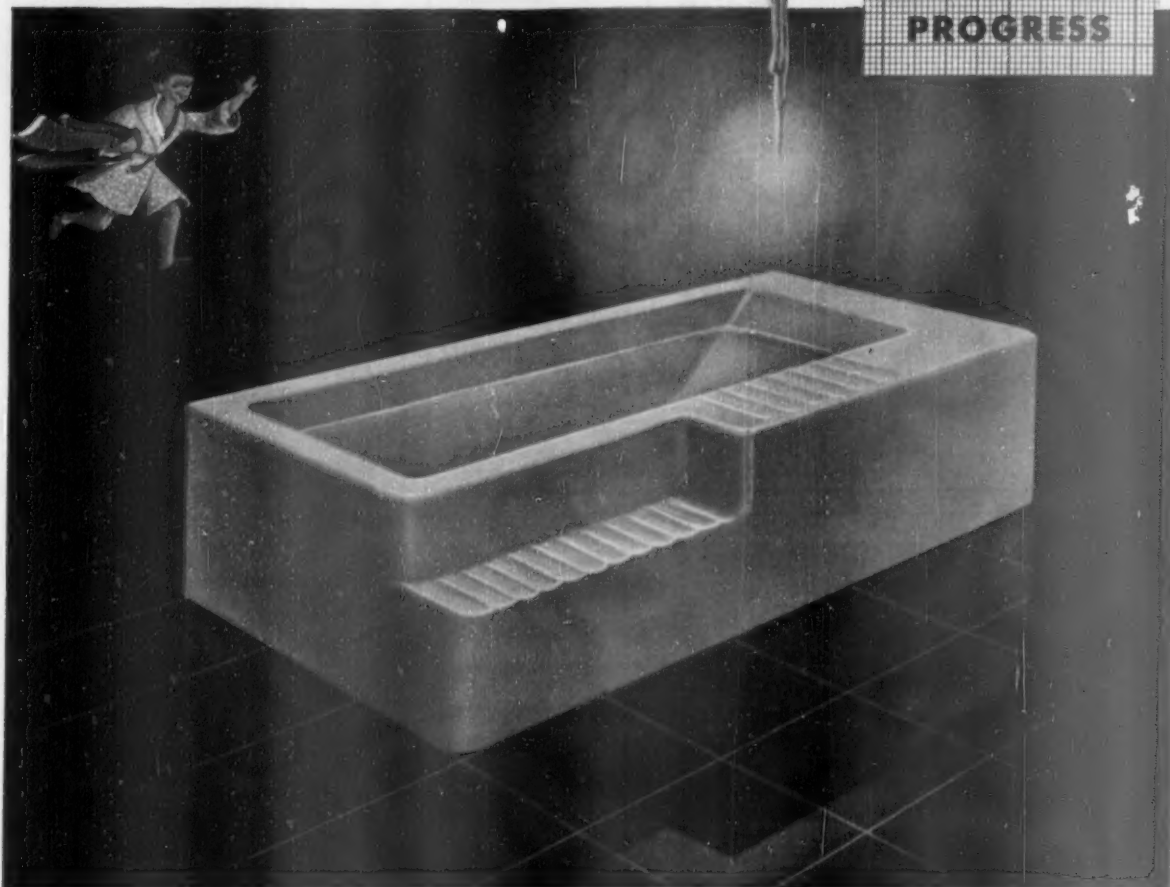
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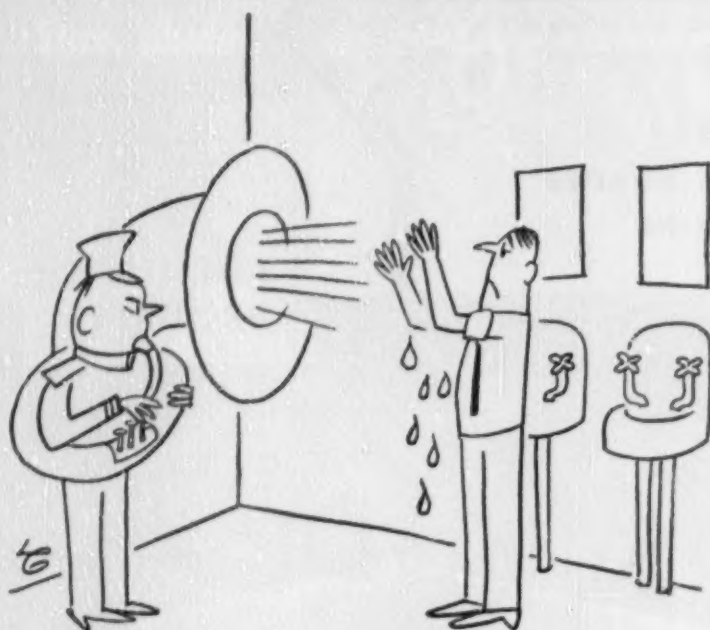
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Haven, the only outsider ever to be president. Angell responded to this distinction by building a new Yale—37 buildings of it—with money from Edward Harkness, John Sterling, and the Rockefeller. It was Angell who established the school of Nursing in 1923, which produced one of the classic lines of undergraduate journalism. In an indignant editorial denouncing the invasion of the campus by women, the editor of the Yale Daily News closed with the ringing line, "Let's keep Yale homosexual." Unfortunately, it didn't stop the women.

• . . . **Keeps Swinging**—The age of the flapper was the lowpoint of the elective movement at Yale. The gentlemen scholars of the twenties spent about two-thirds of their time in studies that were prescribed in one way or another.

Ten years later, it was quite different again. By then the faculty had begun to worry about lack of concentration—of short-changing major subjects. The upshot was a slash in the basic and group requirements; the student had about 50% of his time for free electives, and it was largely left up to him to see that he got a well-rounded education.

This lasted until the early forties, when the idea of balance came back. The faculty added to the list of prescribed courses and tightened up group requirements. Yale rode along with this program through the war. Then it stopped producing face-lifts, and made a major model change.

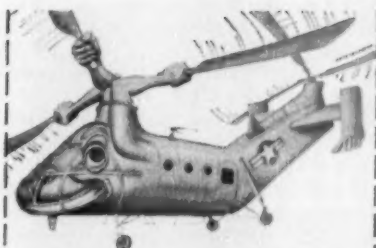
### III. Tripartite Plan

What Yale came up with was a new design, but not one designed by Yale alone. "We have not been ashamed to take good ideas where we have found them," the Committee on the Course of Study said. And it admitted finding good ones—in Robert Hutchins, Stringfellow Barr, and in the progressive women's colleges.

There were really three parts to the design: a standard program to apply to the great bulk of the liberal arts students; an experimental plan, called Directed Studies, for a smaller group (about 80 students); and a program for an elite group (roughly a dozen students today) called Scholars of the House. The body of the new design was the standard program. But the flash was in the accessories—Directed Studies and Scholars of the House.

• **Standard Program**—What the standard program did, essentially, was to strike a balance among the three elements that Yale had cycled through during the past 60 years: electives, the group requirements, and the concentration on the major study. Its aim is "to provide the student with the fundamental studies, to acquaint him with





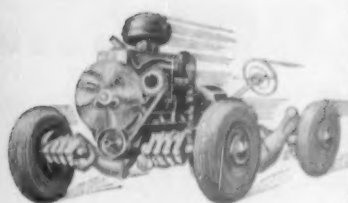
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the great fields of knowledge, and to make him a reasonably competent person in a limited field."

Take Roger Yalie, who came to New Haven last fall. Under the standard program, he has been steeped this year in four required courses: (1) English, Latin, or Greek; (2) a modern language; (3) formal thinking, in which he can pick from mathematics, philosophy, or linguistics; (4) laboratory science—chemistry, physics, etc. Next year, he'll have four required courses again, but he'll be able to pick them from five fairly broad groups.

When he gets to be a junior, Roger has to pick a major subject—and take five courses in it during his senior and junior years. His time budget at graduation will show 40% in required basic and group courses; 25% in his major subject; and the rest for electives and preparing for final exams.

• **Directed Studies**—That's the standard program. It changes the mix, primarily. But a student may, if he wishes, choose instead to take the Directed Studies program. This is a far bolder venture for Yale; it concocts a whole new recipe.

The concept of Directed Studies, which applies to the first two years, is discipline; once a student enters the program, he has little choice in the courses he takes. But the courses do go together, and that is the point—to present the student with a unified body of knowledge and to show him the interdependence of learning.

The courses in Directed Studies are different, and the way they are taught is different. In content, there is at least a partial breakdown of the old departmental barriers; in teaching, the lecture gives ground to informal discussion groups. The student has to do a great deal more writing, and there is a much closer contact with the instructor.

What Directed Studies relies on to integrate its subjects is a pair of central philosophical courses. The student takes one each year—in the first year when he is concentrating on the laws and principles that operate in the natural world; and in the second, when the stress is on social and moral laws. The courses act, in a way, like commentators, binding up the other subjects for him.

• **Scholars of the House**—If the concept of Directed Studies is discipline, its complete opposite is Scholars of the House. There the exceptional student has a chance to go it quite alone and go wherever he pleases.

Scholars of the House—the name came from Trinity College, Dublin, by way of Harvard—is for seniors only, a carefully picked handful of them. The student is free from formal classes; he works with a faculty adviser, and his main job is to read and prepare an essay or project. He is judged on what he writes—and that quite often compares

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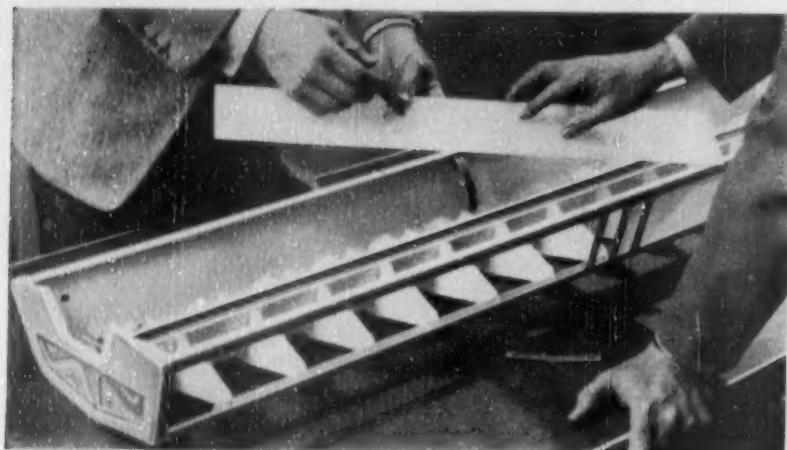
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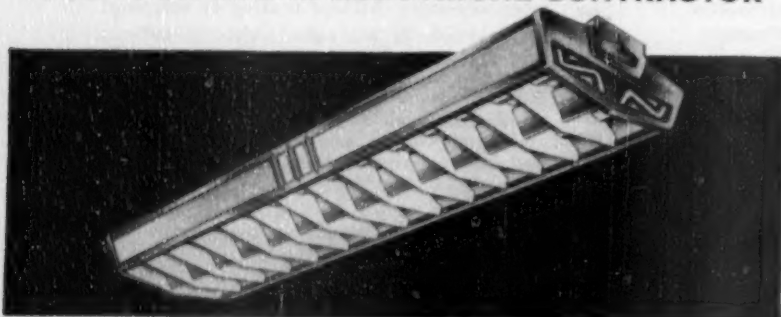
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to a Ph.D. thesis—and on an oral examination at the end of the year. Out of some 80 students who have been picked for Scholars of the House over the years, only about 5% have been casualties.

#### IV. Continuing Change

Change often breeds change. It has worked that way at Yale since it revised its prewar habits in 1945.

The wall between the engineering and liberal arts schools—"Sheff" and "Ac"—came tumbling down in merger in 1946. The Sheffield Scientific School still exists on paper, but undergraduate engineering students are now a part of Yale College. (Roughly 100 out of this year's graduating class of 900 will carry off B.E. degrees.)

Smaller reorganizations followed—within departments and study offerings. New courses were added, staffs enlarged and changed. Both the economics and religion departments went through considerable revampings, although Yale insists that William Buckley's criticisms (in his book *God and Man at Yale*) had nothing to do with them.

• **Extension**—With the class of 1950, the integrating concept of Directed Studies was carried into the junior and senior years. Upperclassmen can now specialize in what is called the divisional major—broad areas of study that cut across traditional lines and cover courses from several departments. Small seminars are used to pull the courses together and to put them into focus for the student.

Yale has steadily moved in the direction of these small instruction units—seminars and discussion groups—throughout the entire postwar period. The trouble is this kind of teaching takes money—much more than for bigger lecture classes. The latest seminar expansion, the setting up of three sophomore courses in each of the residential colleges—was possible only because of a \$5-million grant from Paul Mellon's Old Dominion Fund. (Yale has 10 residential colleges, patterned after the English system. They were built during the thirties with money from Edward Harkness, who earlier backed Harvard's residence houses. The quip is that the colleges were a Princeton idea—Woodrow Wilson is credited with sparking it in the U.S.—started at Harvard with Yale money.)

• **Critical Report**—All this is where Yale stands today—after more than eight years of postwar revision. Where it will be tomorrow, though, is something else.

Last fall, a committee headed by Griswold brought in a report that attempted to lay out a position for the future. It produced something close to campus ferment.

Yale, the report says, is still off base

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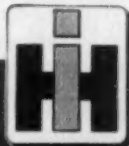
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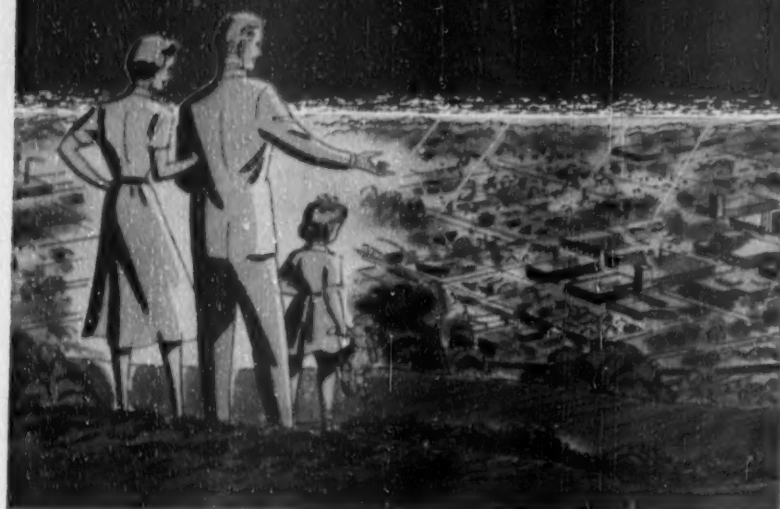
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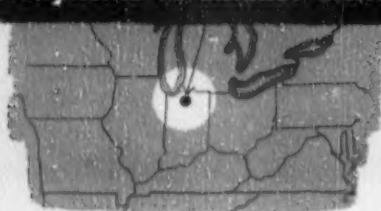
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in its standard program for the first two years. There is a lack of integration with secondary school work, too much duplication, not enough challenge. Students aren't forced to extend themselves, they become bored, turn to extracurricular activities. More important, the first two years fail to present learnings as an integrated whole.

• **Two Proposals**—The report proposes two plans—A and B. A is fairly moderate. It takes off from the present standard program, regroups the studies into three main areas, tries to get more progression and concentration. It also suggests admitting superior students without requiring them to finish high school.

Plan B is far more radical. A long-range proposal, it leans heavily on the theories of Directed Studies. But it goes much further than that.

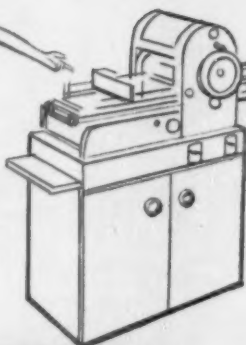
Like Plan A, B regroups the studies into three areas—natural sciences and mathematics; history and the social sciences; art. Within each of these areas there would be several syllabi, based on a reading of set books. The student would have to select one of the syllabi from each of these areas and at the end of two years he would be examined on it.

The present course system would be pretty much scrapped. For each syllabus the student picks—and the syllabus would combine the work of several departments—there would be a discussion group and two hours of lecture each week. The student would have to go to the discussion groups, but he could skip the lectures if he wanted. The only formal grades would be those for the general examination at the end of the two years; in between there would be only written reports by the discussion leaders and progress grades.

The net effect of Plan B would be to give the student more physical freedom, but more discipline in the mental processes. The report is now in the hands of the course of study committee. What will come of it is completely guesswork. There is a sizable, and vocal, faculty group against it—mainly on the grounds that the plan would sidetrack certain vital subjects, religion and philosophy among them; that the student isn't ready for so much responsibility; and there isn't enough sampling of courses allowed to give the student a firm idea of what he wants to pursue.

• **No End to the Search**—Nevertheless, there is no dispute that raising the issues is all to the good. If the liberal arts are to survive, educators believe, there must be this continual searching and reexamination. Griswold, perhaps, summed it up as well as anyone: "Only by doing better shall we continue to do as well."

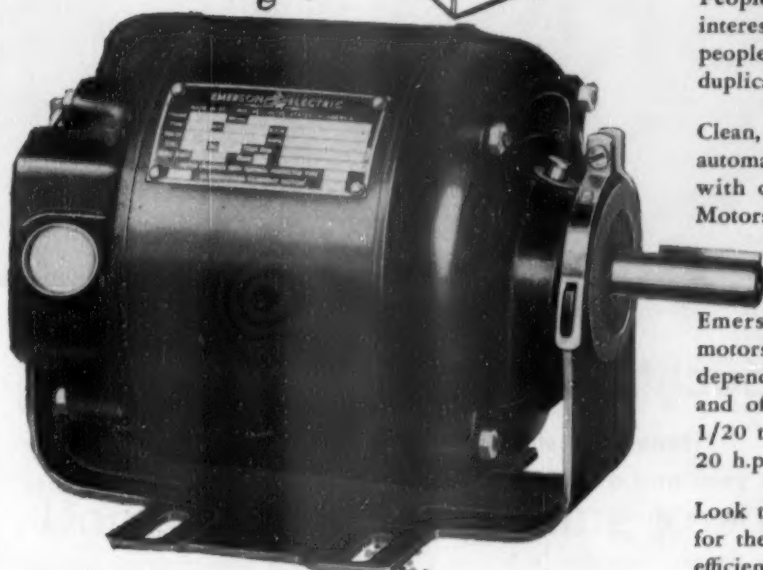




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Emerson-Electric specializes in building motors for equipment with a reputation for dependability. It has done so for 64 years, and offers standard motors in ratings from 1/20 to 5 h.p., and hermetic motors 1/8 to 20 h.p.

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KUHT-TV, Houston, noncommercial pioneer, heads a swelling flock of stations as...

## Educational TV Creeps Ahead

Three new stations have opened across the country  
this year and a dozen others may follow soon. But progress  
has been slow.

In the two years since it became a possibility, educational TV has had a great deal to talk about, but not much to crow about. This week, it could do a little crowing.

On Sunday evening, May 16, five educational TV stations—alive and proud of it—will all carry a special one-hour-long film program. The show itself will give viewers an advance look at some of the programs they will be seeing over the next few months and will bring them up to date on the status of educational TV. But more than that, the show will be a symbol—a symbol for what the partisans of educational TV see as a “coming of age” for their medium.

• **Taking Hold**—Since the first of the year, three educational stations—WKAR-TV, East Lansing, Mich.; WQED, Pittsburgh; and WHA-TV, Madison, Wis.—have come on the air with a daily program schedule. By midsummer, there is a good chance that three more, in St. Louis, San Francisco, and Cincinnati, will have started regular telecasts. That would make a

total of eight noncommercial stations, counting in the two pioneers—Houston and Los Angeles.

By autumn, the National Citizens Committee for Educational Television believes that another nine may be able to get up and go. This is a less solid figure, though, and there may be some optimism built into it. Hopes have overshot the mark before.

• **Slow Starter**—There's no denying that educational TV—with five stations on the air—can point to real progress this spring. The only trouble is the progress has been slow—much slower than was expected (BW—May 17 '52, p. 182).

When the Federal Communications Commission lifted its freeze on new stations in April 1952, it set aside 242 channels (now 251) on a reserved basis for educational TV. To date, it has received 46 applications to build stations for these channels; the total of its construction permits—the official go-ahead—is 29.

This boxscore prompted the trade magazine Broadcasting, Telecasting to blast the “educational lobby” and to



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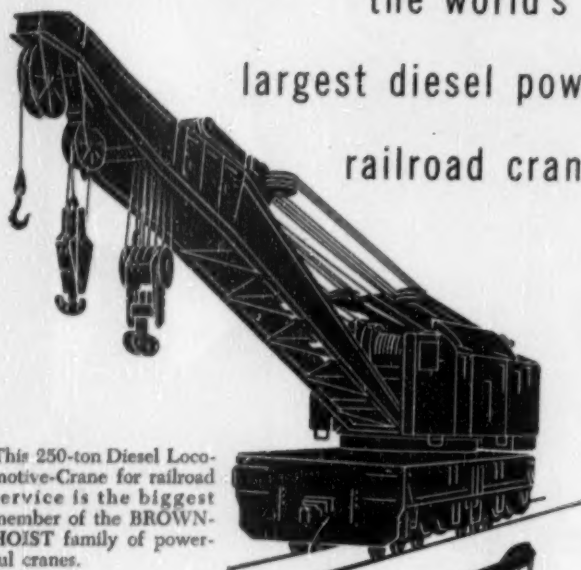
**Call your Royal Representative (sales • service • rentals)**



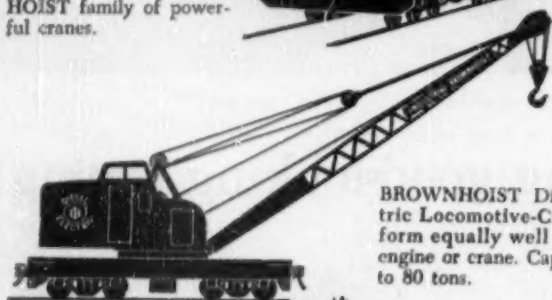
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171

say that 200 channels are "vegetating, many of them in areas where there are qualified commercial applicants and where additional service is needed." FCC, however, has given no sign yet of wanting to cut into the educational set-aside. Although it implied that it would review the allocation after a year, its only action so far has been to increase it. (Chairman Rosel Hyde said in April that the allocation could stand as long as there is "tangible interest" in taking advantage of it.)

• **State Action**—Part of the impatience with educational TV is probably the result of what happened in the beginning: The plans for it—including visions of state-sponsored networks of a half-dozen or more stations—were overly ambitious.

Certainly, the states haven't picked up the ball. Only four have gone beyond scrimmage with the network idea. The Wisconsin legislature has set up a Radio-TV Council, which will be the licensee for a proposed state network. The council plan comes up for referendum this fall. In the meantime, some state money is going into the Madison station.

Alabama has put up \$500,000 to build a pilot plant for a possible three-station state network. Oklahoma's legislature has O.K.'d an educational-TV authority, which is floating a \$1.5-million bond issue. Two stations are hoped for, with the citizens footing the bill for operating costs. New York has authorized the Board of Regents, which is the licensee for the state's outlets, to charter local groups to build and operate stations. There's no money involved, however; plans for a state-financed network were squelched last year.

Against this, New Jersey, which once had plans for a six-station network, has now backed out of state TV. Gov. Robert Meyner killed off an appropriation that would have given another year's life to the state's experimental station at Rutgers University.

• **Community Picture**—At the community level, the big drag on getting started has been organization and money.

Although the idea of a community station may stir no more opposition than Arbor Day, getting it off the ground is something else. The National Citizens Committee, which is backed by money from the Ford Foundation's Fund for Adult Education, has been helping with the spadework, getting groups together, advising on committee organization, fund-raising. But it takes time to get a city charged up and moving.

It takes even longer to get it to open its pocketbooks. The cost of building a station figures out to about \$250,000; about the same amount gets eaten up by operating costs each year. The Fund for Adult Education has put up a big



Orchard Spraying, Berks County, Pennsylvania

Shostal Press Agency Photo

**BULLARD**

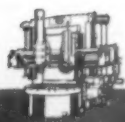
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Modern farming methods, like modern industrial methods, use modern equipment to do the job better and faster. From the ox plow of our forefathers to the tractor with plow attachments, from the scythe to the modern reaper, from the hand hoe to the mechanized cultivator—these, are just a few examples of the progress made in the farm equipment field which makes possible greater crops per acre with far less effort and time.

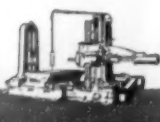
*Modern Machine Tools* are basic tools in the manufacture of mechanized farm equipment including tractors, sprayers, spreaders, cultivators and reapers—all truly, "The Invisible Background of Industrial Progress."



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# *This is National Steel*



## **Putting the squeeze on bigger ingots in this giant new slabbing mill**

Another important milestone along National Steel's path of progress is this new slabbing mill—first in the world of its type—now in operation at the plant of its Great Lakes Steel division, at Detroit, Michigan. Seizing white-hot 20-ton ingots in its giant grip, the mill applies a mighty squeeze to form them into extra-large slabs for cold rolling into sheets.

End result of this new facility—automotive manufacturers and others who have use for wide sheets can now have the advantage of coils of steel in which the unwelded sections are several times

longer than in coils made previously. In fact, coils weighing as much as eight tons, up to 77 inches wide, can now be obtained *without welds!* These wider, longer coils speed production and cut down material handling and scrap losses for the user.

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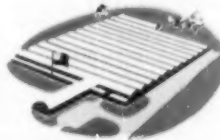
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**5 YEARS AGO** The White Motor Company introduced an entirely new type of truck—completely functional—designed to reduce delivery cost because it could do more work per day or per mile. So new and different, other manufacturers thought the White 3000 of little consequence, at the time.

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Call of owners of ten or more is published as unassailable proof of this fact.

The highest compliment that can be paid an entirely new product is that other manufacturers attempt to imitate it when its success has been proved. However, there is only one White 3000—the others will always be imitations.

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chunk of this money in matching grants to communities. But the rest has had to come out of other coffers. (The overall investment in educational TV today is put at more than \$13-million; the citizens committee figures that by year-end more than \$5-million will have been contributed by the public.)

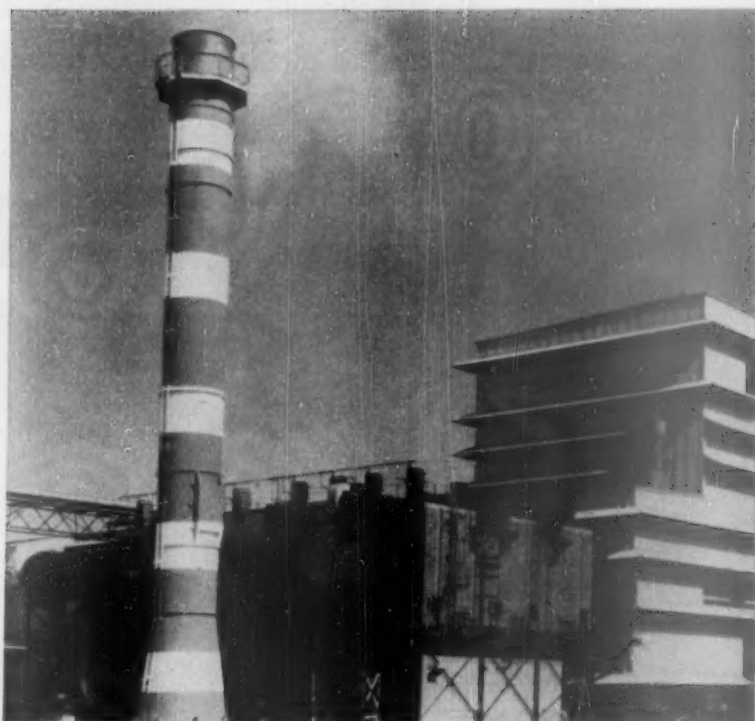
The feeling is that if more people could see what educational TV can do, money would be a little easier to come by. Next week, for instance, the Educational TV and Radio Center at Ann Arbor, Mich., will start making a weekly five-hour film package available to stations. Included are a series of programs by Mortimer Adler on Great Ideas; Frank Baxter's course called Shakespeare on TV; a series on American political parties; and seven programs on child growth and development.

• **Pioneers**—How have the stations made out that are on the air now? What sort of programs have they offered?

KUHT-Houston, the pioneer, went on the air in May 1953. It now programs about 40 hours a week, offers seven courses for credit, two that aren't for credit. Mixed in are dramatic shows, after-school story telling for children, music, art, and news. The station is backed by the University of Houston, which is spending \$92,000 on it in 1953-54. Enrollment in the noncredit English course is 850; in tuition courses it averages 50 to 70 students. There have been reports that program ratings are low compared with educational shows on the local commercial station. But the university denies this.

KTHE-Los Angeles went on the air in November, now schedules about 15 hours weekly with telecourses, children's drama, music, art, and community programs. The audience, however, is limited by the station's ultra-high frequency; only about 30,000 sets in Southern California are equipped for UHF. Its best-known course is Shakespeare on TV, which is offered for credit by the University of Southern California. Main backer of the station is Captain Allan Hancock, 79-year-old philanthropist.

WQED-Pittsburgh has been on the air since Apr. 1, now carries 17½ hours a week of in-school and after-school programs, telecourses, hobby and how-to-do-it shows, music and art. The station has no formal university tie, operates with a loaned tower from Westinghouse Radio Station, Inc., and in a \$1-a-year studio given to the University of Pittsburgh by Pittsburgh Plate Glass Co. Local reaction has been enthusiastic; the station has already sold 70,000 subscriptions (at \$2) to its program guide, which will go toward meeting operating costs. The station organized with \$350,000 in grants, mainly from foundations.



Installation of Koppers Electrostatic Precipitator, St. Regis Paper Co. plant, Jacksonville, Florida.

## Why St. Regis Paper Company Selected Koppers Electrostatic Precipitators

When St. Regis planned to locate its new Kraft mill near Jacksonville, Florida, the entire project hinged on getting formal approval from municipal authorities.

Among other things, the zoning board required complete assurance that flue gas from the plant would not be a residential nuisance or hamper operations at a nearby airport.

To avoid possible municipal objections, St. Regis turned to Koppers to solve the gas cleaning problem.

Result: Koppers Electrostatic Pre-

cipitators not only keep the stack practically free of visible dust emission, but also prove extremely valuable in salt-cake recovery.

Does this suggest a possible solution to your gas cleaning problems? Then contact Koppers. It is likely that Koppers, with its extensive experience in paper mill precipitator installations, can help in discussing similar equipment to satisfy your requirements. No obligation, just mail this coupon. Or attach coupon to your company letterhead.



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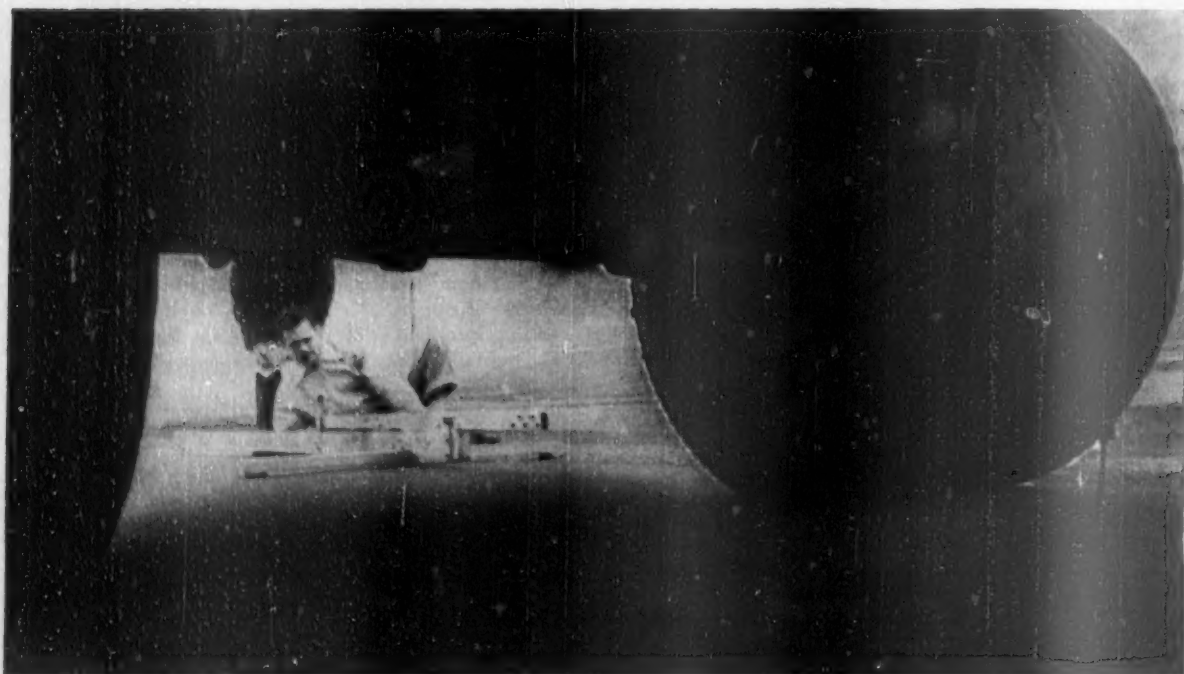
City.....Zone.....State.....



# REGIONS

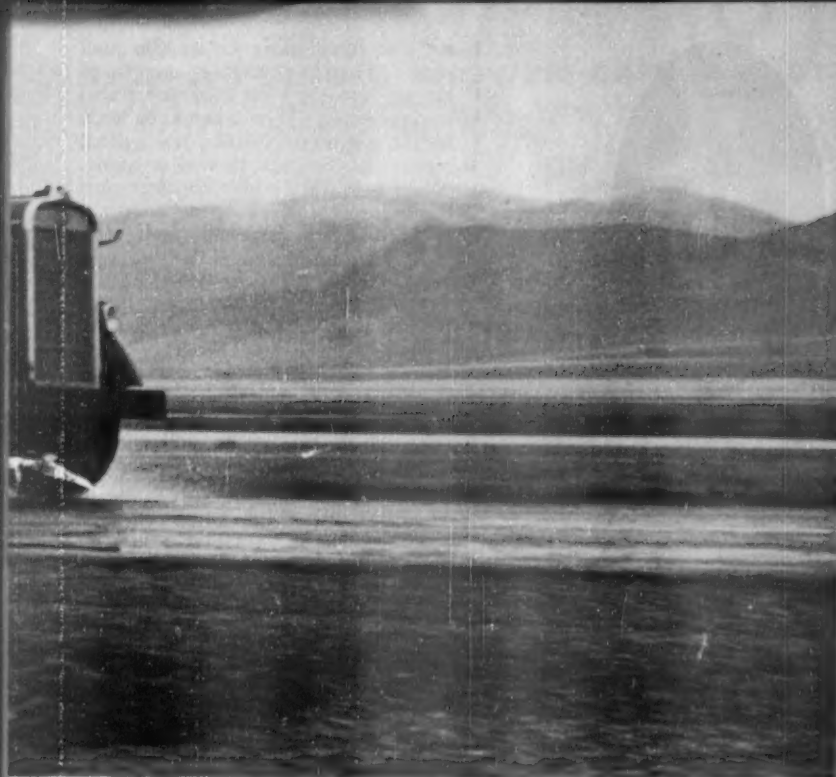


## Idaho Road Test: What Trucks



**MEASURING:** For 18 months engineers have been following up the whirling truck wheels with precise measurements of

what's happening to the road. The engineer above is testing surface deflection, dictating figures for technicians to jot down.



## Do to a Highway



**ANALYZING:** For months more, engineers will pore over data to find why it happened.

By the end of this month, the concrete-loaded truck-trailers shown in the pictures will end their monotonous 18-hour-a-day rumbling over 2½ mi. of highway out in the middle of southern Idaho's peaceful hay fields. Then the road engineers will start digging up what is probably the first road in the U. S. built for the sole purpose of having trucks do an endless loop-the-loop to nowhere over it, to test its truck-resistance.

Actually, the test highway (known as the WASHO Road from its sponsor, the Western Association of State Highway Officials) is made up of two separate roads, each in the shape of a dumbbell—with turnarounds at the ends—and each 1½ mi. long. The pavement is asphaltic concrete, varying in over-all thickness from 6 in. to 22 in. It's near Malad, down by the Utah border.

• **Around They Go**—Eight truck-trailers have been wheeling round and round the double loops at intervals since November 1952. During that time engineers and technicians have been out day by day with their testing instruments, making this the most scrutinized 2½ mi. of highway in the U. S.

They've learned a lot already—more in fact than they will let on—but there

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Pennsylvania department store installation shows how Smithcraft Fluorescent Lighting Units save 10% or more in initial and in operating costs!

Before re-lighting a complete survey was made and exact lighting requirements were established. To meet these requirements, Smithcraft units and the units of several other nationally-known top quality manufacturers were subjected to an exhaustive comparative analysis. Here are the results:

### 10% FEWER UNITS REQUIRED

Number of units required to achieve recommended lighting levels: Smithcraft — 270

2nd Best Fixture — 297

3rd Best Fixture — 339

### 10% LESS INSTALLATION COST

Proportionately less labor and materials were required to install the 270 Smithcraft units than the 297 units of the nearest competitor.

### 10% FEWER LAMPS (Initial & Replacement)

Lamps required: Smithcraft — 706

2nd Best Fixture — 776

3rd Best Fixture — 914

Recommended practice is to replace lamps every 18 months—a continuing 10% savings.

### 10% LESS POWER CONSUMPTION

Required wattage: Smithcraft: 51.3 kilowatts

2nd Best Fixture: 56.3 kilowatts

3rd Best Fixture: 64.8 kilowatts

### 10% LESS MAINTENANCE

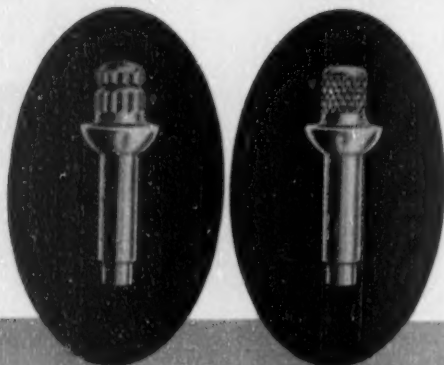
Less labor in cleaning and/or relamping of the 270 Smithcraft units as compared with the 297 fixtures of the nearest competitor.

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Both parts were designed to do the same job—serve as a stud in sun-visor assemblies. The machined part formerly used (at left) cost over \$26.00 per thousand, and the hardness of its screw stock caused difficulties in assembly.

The Milford cold-formed part now used (at right) costs about \$15.00 per thousand. Made of more ductile metal, it "peens over" far faster during assembly.

Many firms experienced in cold-forming were called in on the problem. But only Milford was successful in holding the critical tolerances required, and in cold-forming the part without "ridges" on the smooth semi-spherical section.

Thanks to Milford cold-forming know-how, the manufacturer now saves over \$60,000 a year on the part alone. The savings from speedier assembly represent a free, extra dividend!

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are still three stages before the final results. First, two or three months of digging into the road after the trucks stop pounding. Then a period of study by the engineers. Finally, the written reports, maybe some time next spring.

• **Series**—WASHO isn't the first such highway test in the country, though it is the first over a specially built road. It's the second in a series that began in 1951 with the six-month Maryland test and will continue with a still bigger project in Illinois that hasn't got beyond the planning stage (BW—Mar. 7 '53, p106).

The WASHO engineers are so close-mouthed about results to date partly because of the furor that followed the Maryland test and the cries of anguish from truckers who claimed the findings were unfair.

• **Different**—The WASHO test is being conducted for eleven western states and Alaska by the Highway Research Board set up by the National Academy of Sciences and National Research Council. The U.S. Bureau of Public Roads is also participating. This differs from the Maryland test in many ways. The Maryland truck run was on a road already in existence, and it lasted only about a third as long as WASHO has up to now.

But most important, the Maryland project was conducted on concrete, while WASHO is testing asphaltic concrete. Reason for the change is that asphaltic concrete is the most common highway surfacing in the West, and is extensively used in the Midwest.

• **Scientific**—The WASHO people will also tell you that the Highway Research Board hopes to sidestep criticism by conducting the whole thing on a strictly scientific basis.

Everything is carefully controlled. Each of the 14-mi. loops has one straightaway with a 2-in. asphaltic concrete surface and a 4-in. base, the other with a 4-in. surface and 2-in. base. The subbase varies from none at all up to 16 in. On the south loop, trucks with tandem-axle loads of 40,000 lb. use the outside 12-ft. lane; those with tandem-axle loads of 32,000 lb. the inside lane. On the north loop, trucks with single-axle loads of 22,400 lb. go outside, those with 18,000-lb. single-axle loads inside.

Put all those figures together and you get an idea of the variety and complexity of the calculations.

The variety of instruments is just as great. There are electronic instruments in the pavement, moisture cells and other devices buried in the soil to a depth of 72 in., specially designed surface instruments. Some 18 laboratories, including one at the site, are constantly analyzing the material from all these instruments. Motion pictures, and the keen eyes of a technician who trudges



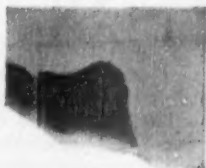
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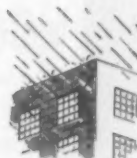
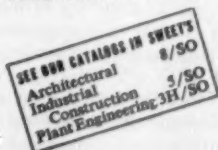
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around the loops each day, add more data.

• **Learning**—As might be expected, the engineers have found the thinnest sections to be the first to crack and suffer displacement; the thickest parts still show practically no distress. Beyond this, there has been a greater difference in deterioration between sections with 2-in. and 4-in. topping than expected.

Another preliminary finding: The outer wheel path, next to the shoulder, usually fails first; but breakage can be reduced by paving the shoulder. Partly as a result, more and more western states are reinforcing shoulders.

When the mass of material is thoroughly analyzed, the engineers will have probably the most comprehensive report ever assembled on one short stretch of highway. Obviously they will have a vast amount of data for roadbuilders in the future (BW—May 8 '54, p196). They believe their final results will also provide guidance in enacting tax laws for highway users, and information on reasonable and efficient vehicle sizes and weights for truck manufacturers.

• **Paving**—Over-all cost of the WASHO test is estimated at about \$650,000. Some equipment was contributed: Members of the Automobile Manufacturers Assn. and the Truck Trailer Manufacturers Assn. loaned the vehicles, and the petroleum industry furnished fuel and service facilities.

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## Tidelands Oil Floods Long Beach Treasury

The victory of the states in the tidelands oil battle has given Long Beach, Calif., a \$125-million bonanza to do a painless city face-lifting job. Voters have enthusiastically approved the tax-free, debt-free operation—but the city fathers are in the unusual position of being afraid to spend, for that purpose.

The \$125-million in tidelands oil revenues has been piling up since the federal-state controversy began in 1947. Long Beach has title to its tidelands under a 1911 California law. (Los Angeles, San Francisco, and San Diego also have the title, but not much oil.) Including the impounded sum, Long Beach's revenues total nearly \$200-million from the tidelands.

There's no question the unspent \$125-million belongs to Long Beach. But the constitutionality of a 1951 law giving it the right to use up to half the revenues for general civic improvement—and not just harbor improvement—is before the state supreme court. Pending the decision, the city fears it might forfeit its tideland title if it goes ahead with \$38-million voter-approved park, library, hospital, airport, and highway projects.



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are your best buy for killing flammable liquid and electrical fires, as well as some surface fires involving ordinary combustible materials. Sizes range all the way from 2½ to 100 pounds capacity...all fully approved by the Underwriters' Laboratories, Inc., Factory Mutual Laboratories, Armed Forces and Government Bureaus.

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To Develop Power for a Growing Region . . .



. . . Five Electric Utilities Band Together

These utilities—private and public—covering these areas, make up the Puget Sound Utilities Council



Puget Sound Power & Light Co.



Seattle City Light



Tacoma City Light



Snohomish County Public Utility District



Chelan Public Utility District

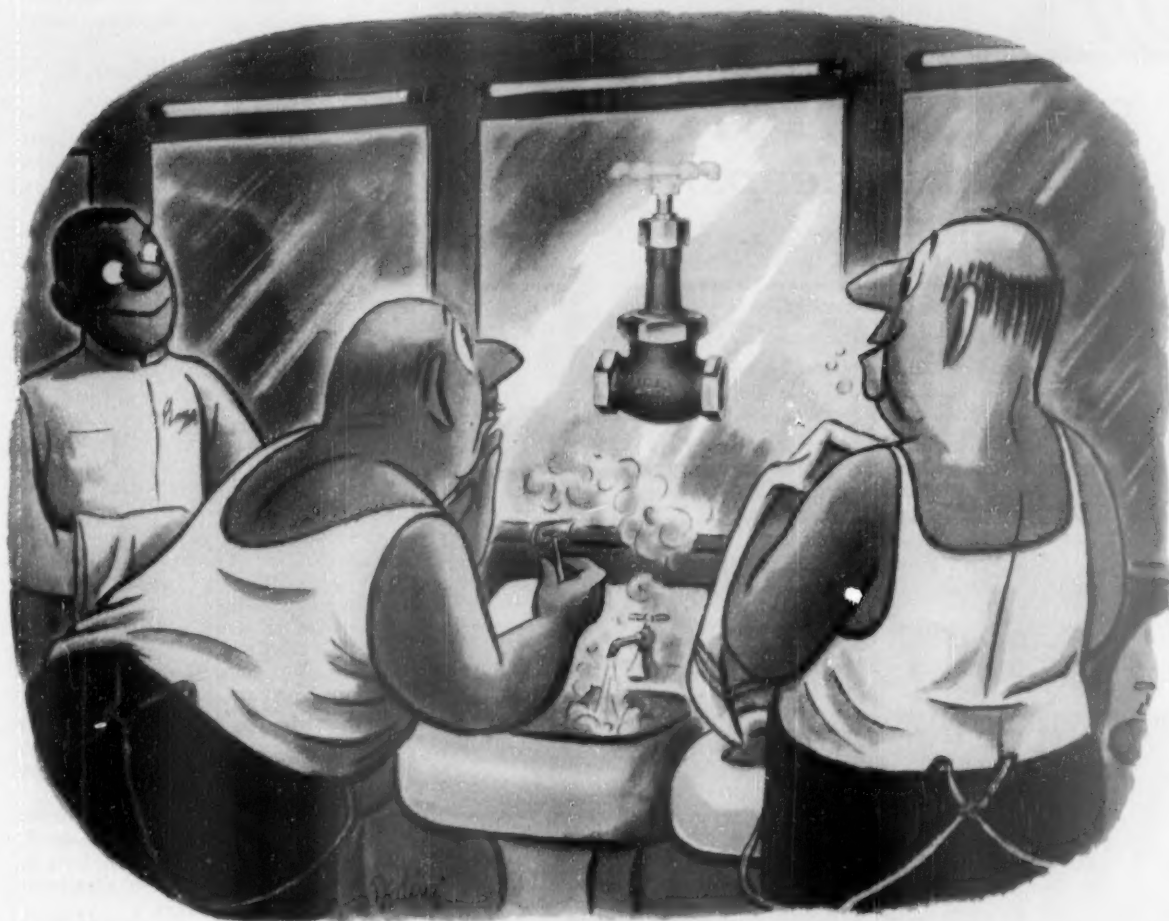
## Attack on Power Shortages

Strange bedfellows though they are, five utilities figure they can do more for their region, and themselves, by working together than by going it alone.

The maps above picture the industrial heart of the state of Washington—the area off Puget Sound. The five utilities shown on the maps serve 60% of the state's customers for electricity, with a total load of 14-million kw.

To anyone who knows the history of power development in the Northwest,

it would seem that these five have little in common besides (1) boundaries and (2) a desire to eat each other up. One of the utilities is a private company; two are municipal organizations; and two are public utility districts (PUDs). Traditionally, outfits of such diverse natures as these should be locked in



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mortal combat—although public and private utilities in the Northwest have been learning to work together through the Northwest power pool, of which they are all members.

Now these five, both for their own good and for that of the region, have banded together into an organization called the Puget Sound Utilities Council.

• **Thing of Spirit**—The five utilities are Puget Sound Power & Light Co., Seattle City Light, Tacoma City Light, Snohomish County PUD, and Chelan County PUD.

The group they have formed is a thing of spirit rather than substance. It has no corporate form. It is not an operating agency, merely a framework for cooperation.

On the other hand, it is much more than a mere social club. The council is expected to do some real work in developing power for the region's fast-growing needs. The five members feel that, while they can handle their distribution problems individually, they have common problems of supply that are too big to handle that way. By co-operating with each other on these supply problems, under the banner of the council, the five utilities hope to build the region—and, consequently, their own businesses—a good deal faster than they could individually.

The utilities won't lose their own identities by belonging to the council. Whatever the council does will have to be the result of unanimous agreement among the five members.

• **Objective**—A declaration of objectives sets down the philosophy of the council clearly. Industrial growth of the Puget Sound area, the declaration says, "has been stunted in past years by insufficiency of power supply and recurrent shortages." It goes on to estimate that the region served by the five members will need 1.6-million kw. of additional capacity, costing more than \$500-million, within the next 10 years.

"The [five] utilities agree it is their responsibility to take care of the total electric power needs of the area for all purposes—including its industrial growth—and they intend to do so."

That statement is the heart of the declaration. The phrases "total electric power needs" and "all purposes" indicate much about the thinking that went into the formation of the council. The phrases show that the council expects little help from the federal government. For many years, the area and its power companies have been "captives" of a federal government that had asserted a primary responsibility for the production and major transmission of the area's power supply.

For some years now, many private and public local power units have been wanting and trying to break away from



*Carpenter* A.E.S.\*



## Good News for Pipe Smokers



*Another example of how Carpenter \*Application Engineering Service is helping industry cut costs, build sales.*

Once a good pipe is "broken in", you can look forward to many hours of smoking pleasure. That is, provided you have an easy way to keep the inside of the pipe bowl in good shape. That's the reason for this reamer type pipe cleaner. You simply insert it in the bowl, turn the expanding blades to fit, then rotate the cleaner to remove excess "cake". These cleaners now sell all over the country . . . but here's the interesting story on how the manufacturer hurdled problems in perfecting the device:

The "heart" of the cleaner is in the cutting blades. For these, the manufacturer was using cold rolled steel, chrome plated. However, plating costs were too high . . . running 7c per blade. Also, plating produced a rounded, inefficient cutting edge.

And to make matters worse, one out of three plated blades had to be rejected.

At this point the manufacturer called in Carpenter and Application Engineering Service went to work. The Carpenter representative recommended a *stainless steel*, Carpenter No. 5, Type 416. Results: Plating costs are eliminated, blades take and hold sharp edges to make a vastly improved product . . . and rejects are a thing of the past.

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that federal domination. Now, under the changed atmosphere emanating from Washington, they are finally getting together to do the job.

• **Partnership**—When President Eisenhower's Administration took over in Washington, it wrote a new policy for power development. This policy called on local governments and private industry to take on more of the work than they had under Democratic rule (BW—Jul. 18 '53, p. 34). It envisioned a "partnership" between Washington and local power interests.

It took a long time before power men were sure exactly what this meant. Most of them feel that the government will continue to build or help build the big, tremendously expensive main dams where and when they are needed, and that local governments and private industry will take care of smaller facilities.

Now, however, there is a widespread feeling among Northwest power men that the government won't do any big-scale power building for a long time. That is one big reason for the formation of the Puget Sound council. The five utilities figure they will have to "take care of total electric power needs" by themselves.

• **Operation**—Exactly how will the council go about this monumental task?

The first job will be to survey the Puget Sound region, and the area served by each utility, to determine how much extra power will be needed when, and where. For this purpose, the council members are putting up \$40,000 for independent advice. Out of this survey should come a list of potential power sites—ranked in the order of their importance to the region.

Then the council will face its first real test. Sitting around a conference table, the members will have to agree to go ahead on the project that the independent consultant says is No. 1.

The utility that owns the No. 1 site will do all the financing and building. But the other four will sign contracts guaranteeing to buy a certain amount of the power generated at the site. This will guarantee a market for the power and thus make the project economically feasible at once.

There is nothing in this setup that requires state or federal legislation. Hence, the five utilities can start building as soon as the survey results and engineering studies are ready.

• **Same Direction**—There are other groups in the Northwest working toward much the same goal as the Puget Sound council. One is Pacific Northwest Power Co., formed in mid-April by five private utilities. Another is the Pacific Northwest Governors' Power Policy Committee, which is studying ways of heading off looming power shortages in the region.

The governors' committee has given

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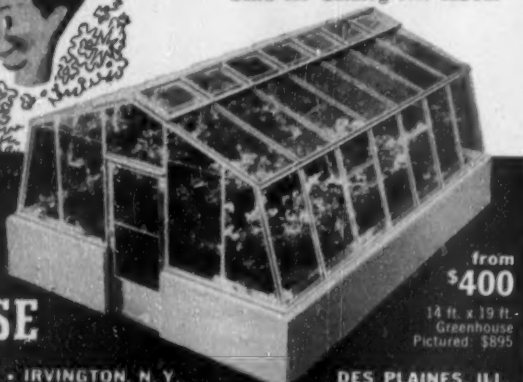


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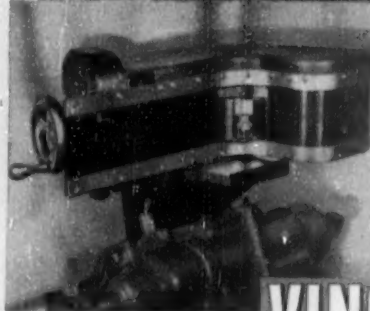
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the Dept. of Interior a report listing, among other things, projects that need to be developed for power. Several of the projects that are proposed as partnership arrangements between the federal government and local utilities are in the area served by the five members of the Puget Sound council.

Undoubtedly the council will welcome federal aid if it can get it. But it is not banking on such aid, and it is prepared to go ahead without it.

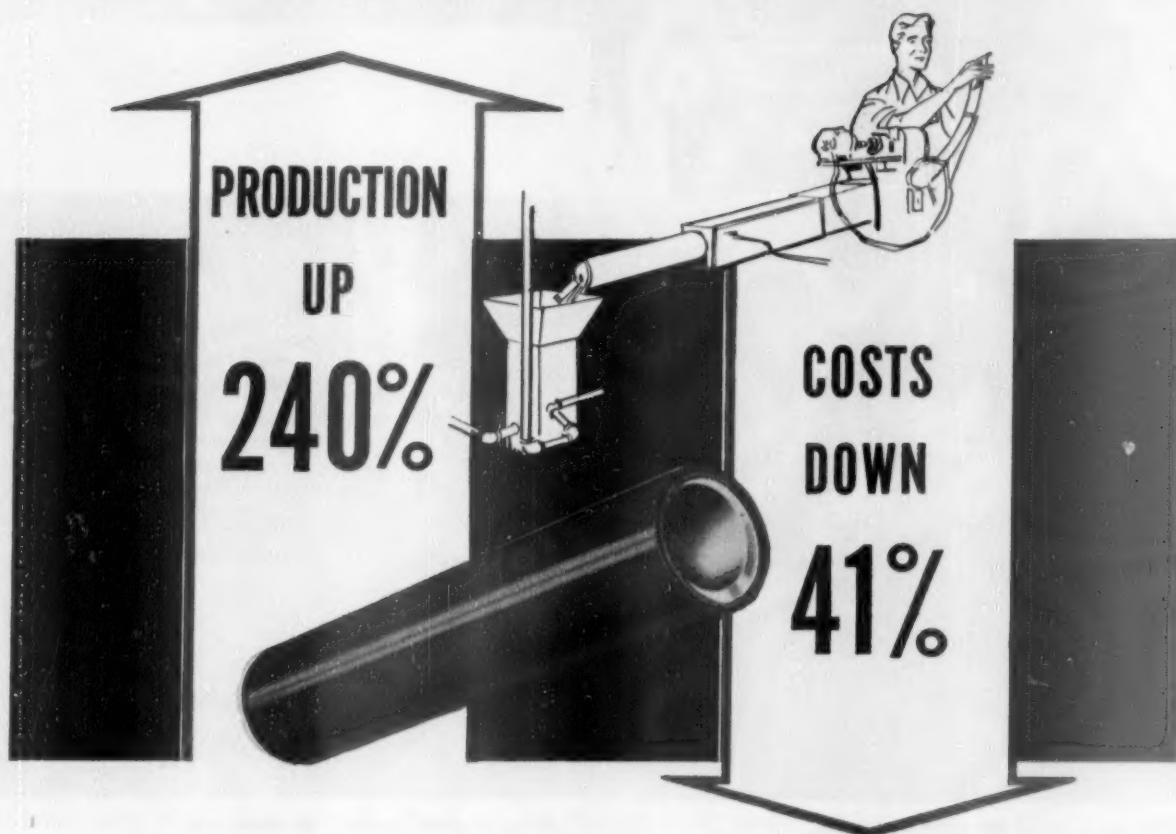
### REGIONS BRIEFS

**There's gold** in them thar hills around Dahlonega, Ga. There once were 1,000 or more producing mines in the area, but today it costs more to get it out of the ground than the gold is worth. To attract tourists, Dahlonega is advertising that visitors are cordially invited to pan for gold and can keep whatever they find.

**The Hawaii visitors bureau** last year bemoaned a lack of hotel rooms that was keeping tourists away from the islands (BW—Nov. 28 '53, p. 90). So many new hotels are being built now, however, that the bureau has changed its tune. Its current plaint is that more advertising dollars must be spent on the mainland to attract enough tourists to fill the abundance of hotels.

**Turnpike notes:** Massachusetts sold \$239-million of bonds to build its east-west toll road. Construction will start this year; 1956 is the target date for completion. . . . Connecticut sold the first \$100-million of bonds for its shore turnpike. First contract will be let by yearend; total cost will be close to \$400-million. . . . The Rhode Island legislature has set up a Turnpike Authority to build an east-west toll road running from Westerly, where it will connect with Connecticut's new pike, to the Massachusetts line at Tiverton. Cost is estimated at between \$35-million and \$50-million. . . . The Mississippi legislature has set up a Turnpike Commission to build a \$100-million pike from Memphis to New Orleans. . . . Louisiana has a bill in the legislature to set up an authority to build a network of toll roads across the state. . . . Kentucky will start construction in July on its \$36-million Louisville-Elizabethtown pike.

**After 70 years of talking,** New Orleans finally has a union railroad terminal to replace the five separate stations that used to clutter the city. The new \$18-million terminal was officially opened last week.



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Radarange, a radical new electronic cooker, shows off for Raytheon's C. F. Adams, Jr.

**Building a market that doesn't exist yet**



Henry Argento (center), Raytheon v.p., shows dealers new leopard-spotted TV sets.

**Breaking cold into a crowded line**

## Raytheon: Learning New

Suppose you have a product so new that no one knows he wants it. It promises to change generations-old habits of the everyday consumer. How do you sell it?

This is one of the problems of Raytheon Mfg. Co. Next fall its electronic cooker, built into a stove made by Tappan Stove Co., will make its bow in the consumer market. The cooker, called the Radarange, doesn't broil, bake, boil, fry, or roast. It just cooks—electronically.

The first electric refrigerator was an innovation. But the Radarange looks to be revolutionary. It hitches a new kind of power to the stove. It cuts hours off cooking time. It turns out a 7-lb. roast in seven minutes, eggs in 15 seconds, "bakes" a potato in a minute and a half.

• **Second Try**—Selling such a product challenges the ingenuity of the manufacturer.

Raytheon made a stab at selling this particular revolution back in 1946, when it showed an earlier version of the

Radarange. That attempt flopped. This time, Charles Francis Adams, Jr., (cover), president, is determined it will go over. In his office at Waltham, Mass., he is charting a controlled, cautious revolution.

This scion of one of the most proper Bostonian families actually came into the Raytheon picture just for this purpose. His predecessor, Laurence K. Marshall, was an inventor, promoter, dreamer. By 1947, when Adams joined the company as executive vice-president, the company was due for a management shake-up. It needed the hand of a skilled administrator. Adams' move to the presidency in 1948 signaled a whole broad shift in management line-up.

Generating a nonexistent market is only part of the larger revolution in which Raytheon is engaged. Basically, its problem is the problem of any company that probes the frontiers of science. In the electronic field, no one knows for sure what paths may suddenly confront you. They may lead to an intricate part of an intricate industrial

tool or military weapon. They may wind up in a TV set on the living room table. What marketing pattern will fit such a potential of end products?

### 1. The Fork in the Road

For Raytheon, the problem didn't loom large till the end of the war. Just about 100% of its production was going to a single customer: the U.S. government. Prewar, its sales—mainly radio tubes—ran around \$3-million a year. With World War II came a flood of government work, researching, developing, building all kinds of electronic military equipment. Sales jetted to a wartime peak of \$173-million in 1945.

Then, in the late 1940s, the company tasted the risks of living off one customer. Sales slid to \$54-million in 1948. It's true that Korea shot them up again; for the year ended May 31, 1953, they were \$179-million—with the government taking some 70%.

• **Richer Diet**—Raytheon wants to get off its unbalanced diet. Aside from





Micronaire, petite version of large air cleaners, aims at homes, doctors' offices, hospitals.



Small radar, descended from military equipment, is designed for yachts, small boat.

Trimming down technical gear to fit needs of more customers

## Markets for Electronics

the risk, renegotiation of contracts often skims the cream off profits. The company hopes to shift the current 70-30 sales ratio to 50-50 this year, not by trimming the military business but by building the nonmilitary.

Raytheon's first decision was to diversify its customers, not its production base. "We pick a field where we know we have superior technical experience," Adams explains, "and push it to the limit."

There were three directions in which to push: into established electronics lines, into markets created by adapting old products to new customers, or into new products. Raytheon elected to do all three.

For an expansion-minded company in the electronics field, this was inevitable. When government orders dried up back in 1946, Raytheon wanted new business fast. That indicated a move into going lines. At that time, it was already clear that television was going hell-bent for election. So Raytheon bought itself a little company,

Belmont Radio Co., in Chicago, started to sell Raytheon radios, and soon, TV sets.

• **New Fields**—But it couldn't stop there. During the war, the company did a lot of radar research for the Navy. This January it brought out smaller radar units for yachts, tugs, and other boats (picture, above). Its work on the magnetron, a vacuum tube for radar systems, helped it grab a lion's share of the diathermy market—by producing what it calls a Microtherm, a small, high-frequency electronic machine that warms and heals human tissue.

The Micronaire is another example of paring down a product to fit new needs. This is an electrostatic air cleaner (picture, above) for homes, hospitals, and clinics. It is supposed to clean air of its impurities and relieve hay fever, asthma, and allergy sufferers. Raytheon has had giant air cleaners operating in Madison Square Garden and office buildings. The new room-sized unit—out this week—will sell for "under \$250."

Sooner or later, Raytheon's knowhow



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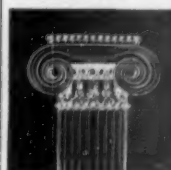
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Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

was bound to take it beyond the adapting stage into the brand new product. That same magnetron did the trick. From it Raytheon evolved the electronic cooker.

• **Middle Ground**—Here a second aspect to the dilemma poked up its head. From being a supplier to one big customer, Raytheon had become a supplier of industry. At the same time, the tide of electronics growth had swept it irresistibly into the consumer market with television. If the electronic cooker goes over, a big consumer market could develop there. You don't use the same tools to sell cathode ray equipment and transistors as you use to sell a stove to a housewife. How do you solve this one?

Companies such as Westinghouse and General Electric play it both ways. But Raytheon's instinct is, again, to stick as close as it can to the market it knows. It is sure-footed in electronics, hesitant in consumer selling. So it has taken as its primary target the middle ground of what it calls the commercial, as opposed to the consumer market.

Its attitude toward hearing aids illustrates this. "We could make hearing aids," an official points out. "But why should we go into a competitive, crowded field when we can do all right supplying hearing aid manufacturers?"

• **Cautious**—The company concedes that consumer lines have one strong asset: They build a brand name. The stronger the name in consumer products, the more prestige it carries in commercial fields.

Raytheon officials sum up their thinking this way. "We don't intend to go into the consumer field unless it has sound commercial value." This doesn't shut the door on the consumer market. If its own progress leads it that way, Raytheon can take that door—as it did in television.

II. TV—First Big Try

When Raytheon bought Belmont, it was in the radio-TV market—or so its officials thought. Yet somehow the magic of the Raytheon name, so potent in a few industrial fields, spelled nothing to the consumer. Belmont also turned out sets for Montgomery Ward, Western Auto Stores, and others, as well as Raytheon brand sets. But it lost money.

A year ago, Adams called in Henry F. Argento, veteran Raytheon trouble shooter, to set things right.

Argento juggled the division's management, streamlined operations, revamped the sets to give them customer appeal (picture, page 114). And he set out to overhaul its distributorship.

• **Short Line**—One problem in building up a distributorship was that Raytheon had a short line. Its only consumer product right now is television.

PAGE

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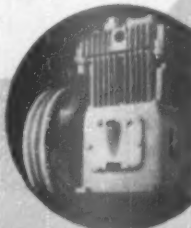
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Argento made a virtue of this weakness by bearing down on the fact that there would be no tie-in sales. He won several high-grade distributors in recent months just this way.

Then, if you want to build a loyal distributorship fast, Argento argues, let the distributors make money. He's giving them "somewhat longer margins" on low-priced sets than most distributors get.

Finally he worked out a unique plan that he's trying experimentally. It works like this:

Raytheon pays a flat salary to a sales manager, who works for the distributor. The distributor reimburses Raytheon on the basis of a fixed percentage of his sales. Suppose the sales manager gets \$15,000 a year from Raytheon, and the distributor repays Raytheon at the rate of 1% of gross sales. If the distributor does less than \$1.5-million a year, he's getting a skilled sales manager for less than \$15,000. If the distributor does more than that, it will pay him to put the man on his own payroll.

Argento figures the cost to Raytheon is money well spent. It gets the distributors top-flight managers, men who know Raytheon products and sales methods. He admits, though, that the plan is still an experiment. Some distributors "won't want an outsider telling him how to run his business."

The division isn't out of the woods yet. But Raytheon's share of the TV market is 50% greater than it was a year ago. Argento has 62 distributors now. With his new lines—including color, already on the market—he hopes to go places.

Argento has ideas for other lines—some day. If Raytheon does develop in the consumer market, this division, the only one with consumer selling experience, would be the logical place to expand.

### III. Brave New World

Perhaps no product wraps up in one bundle all of Raytheon's problems as neatly as the Radarange. Raytheon knows some of the problems only too well. It got burned on this same stove nearly 10 years ago. This time Adams is calling on all his abilities to organize and coordinate to get the cooker cooking.

• "Home Cooking"—For several years now, Raytheon executives have been eating "electronic" lunches, cooked on a Radarange in their own company kitchen. They see nothing bizarre in eating food that comes in a minute, or a fraction of a minute, from the shiny, stainless steel oven that starts and stops by pushbutton, that has a timer whose dial registers no longer than 15 minutes.

But Raytheon executives know very

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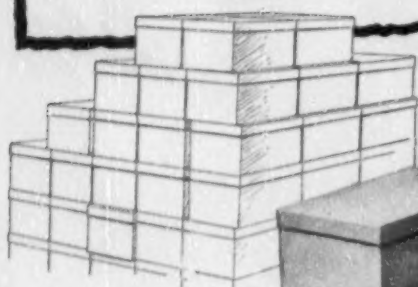
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as you need them  
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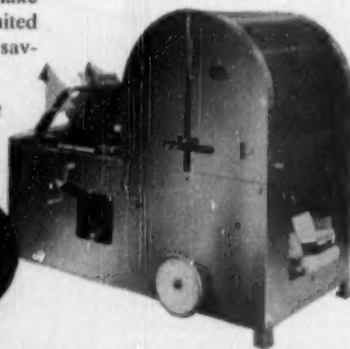
You can save up to 85% of the space you now use for storing factory-made cartons — and drastically reduce carton costs at the same time. You can do it by using die-cut blanks and a PA carton forming machine to make your cartons *as you need them*.

Flat, die-cut blanks can be stored more easily and in far less space than either prefabricated or hand-set-up cartons. And, of course, these blanks are much more economical than any type of factory-made carton.

The PA carton forming machine takes up only 3 x 6 feet of floor space. Forms and glues blanks into sturdy and attractive cartons at speeds to 100 a minute. It is adjustable to form cartons of different sizes — one machine may be able to supply your entire cartoning needs.

Find out how much you can save. Send us a sample of the type of carton you now use, and an outline of your requirements. We'll make up a dummy PA-formed carton exactly suited to your set-up, and tell you what kind of savings to expect with it.

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NEW YORK PHILADELPHIA BOSTON CLEVELAND CHICAGO ATLANTA DALLAS  
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well that it would seem plenty bizarre to the housewife and her family. It has a long education row to hoe.

Source of the energy that cooks the food is the magnetron. Microwave energy flows from a magnetron tube as light flows from a bulb. When the waves hit the food, the food absorbs the energy, and, in a sense, cooks itself. Penetration of the waves is about three inches. If the food is a roast, the portion that the microwaves don't reach is cooked by conduction.

In 1946, Raytheon proudly put its first Radarange on display, at the Waldorf-Astoria Hotel in New York. In the next couple of years, it made more than 100 of them, leased them to restaurants in 10 cities.

Then the idea blew up. Service costs were too high. Rentals were too high—\$150 a month on a two-year contract. Nobody really knew how to cook electronically. The cooker was too small. The oven didn't heat evenly.

• **Pioneers**—Things were at this pass when Adams took over. He clamped down on Radarange production, and the researchers went to work on it again.

By now Raytheon was convinced it had not a gimmick but a product on its hands. Late in 1948, before the clamp-down, the company put six more models in the field for testing—and all are still operating. It tackled the big customers. One went aboard the S.S. America. One went to a Providence (R. I.) restaurant. At last, Raytheon began to hear good things about its product. The restaurant could cook the bulk of its food on traditional stoves, warm it up on the Radarange. It could turn out last-minute orders in no time. The result: almost no wasted food.

In 1950, Raytheon designed two new models, one for a counter, like a table TV set, another of console size. In March 1952, it accepted a "prestige order" for six of the consoles for Pennsylvania RR's coffee shop cars. When Otto Bismarck, the S.S. America's chef, transferred to the S.S. United States, Raytheon built him two super-consoles for the new liner.

• **Hot Issue**—Here once more an old problem revived. Basically Raytheon had hold of a product that could—and should, Raytheon thought—end up in the housewife's kitchen. Should it take the plunge again into consumer selling?

The company voted no, at least for the time being. Putting over a revolution was job enough; putting it over in a market where the company had little experience was too much.

Finally, in 1952, a solution appeared. Tappan Stove Co. got interested. A short time ago Tappan announced it would sell a consumer stove containing the electronic cooker (BW-Apr. 3 '54, p102). Raytheon could keep out of the stove business, concentrate on its



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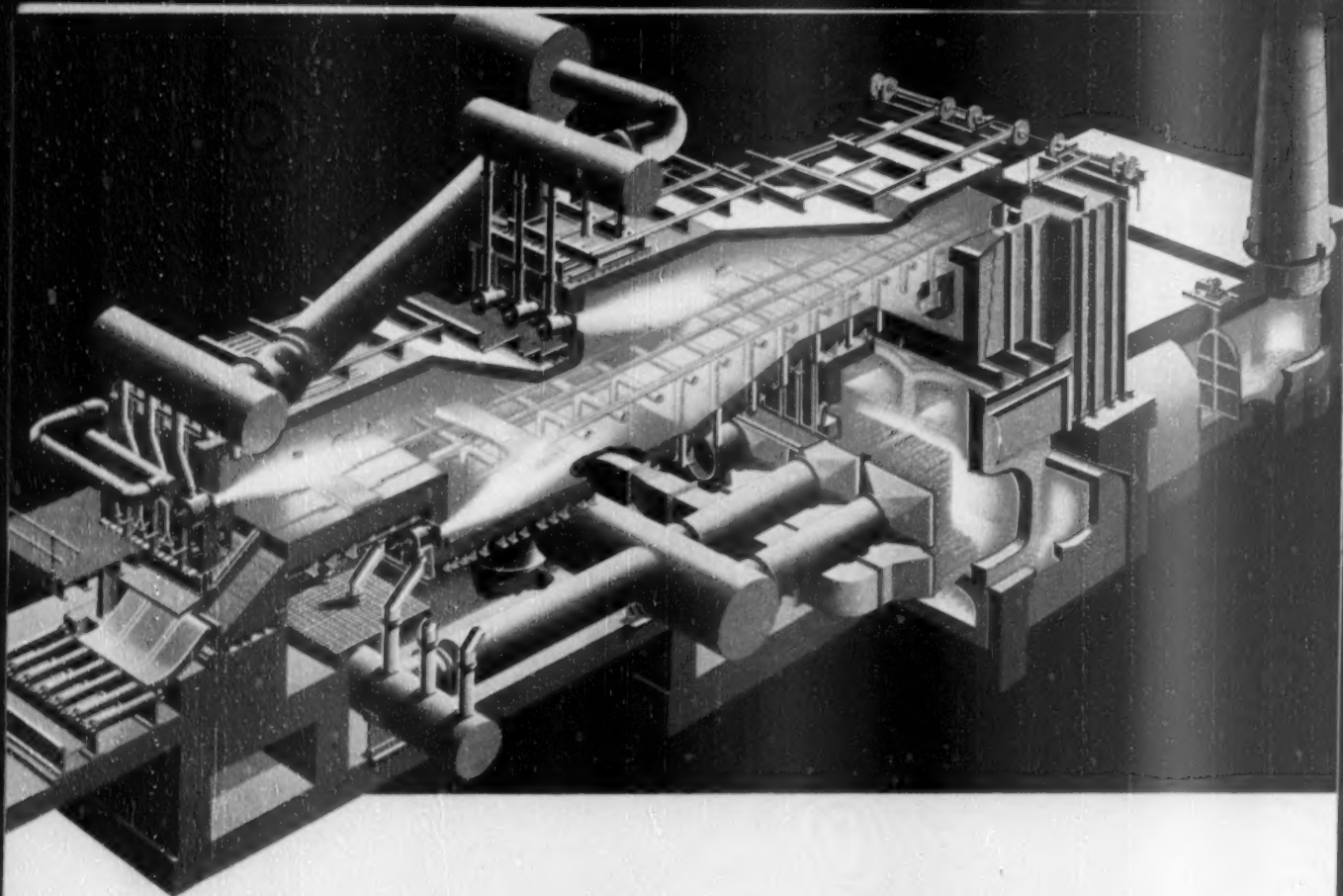
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favorite market—the middle-ground customer, the commercial operator.

Raytheon has laid out the lines it will follow in marketing that commercial product with the greatest care. With the aid of a marketing survey by Cowan & Dengler, Inc., of New York, it planned its attack in three phases:

First, Raytheon puts a field man in the market to sell a few restaurants and hotels on the idea; then he waits till these outlets have found the cooker reliable and profitable. Next, the company sets up dealerships, and helps the dealer find customers. Third, when Radarange has won general acceptance, Raytheon will give the dealer limited help in choosing customers, servicing, etc.

• **Price**—For its medium console, Raytheon has a suggested price of \$2,975; for the counter model, \$1,875.

Meanwhile, at the consumer end, Tappan will do the selling. Price so far is pure guesswork, but it will probably be around \$1,000. On the consumer model, the planning is just as careful as for the commercial cooker.

To ease the housewife over the chasm of revolution, the first stove will look like a traditional range; it will have the usual gas or electric burners, the usual oven. Only thing unusual will be the additional electronic unit.

Plenty of hazards lie ahead.

First the cooker cooks so fast. The housewife will have to adjust to a routine that pares her cooking schedule from hours to minutes.

Then, Radarange-cooked food looks different. A baked potato has no crust—it isn't really baked, a fried egg doesn't look fried. A steak or roast has no charcoal surface. You won't get that golden brown on your cake.

• **Guide Book**—To help at the practical end, Raytheon has prepared a new cookbook. The answer to the new look in food is to cook it in the electronic unit, whisk your roast into a conventional stove at the last minute for browning. Maybe some day you'll decide that the crusty brown isn't so important.

So far Tappan is the only company that will market the consumer stove. But Raytheon is leaving the door open to other stove manufacturers. It hints that some day, if the market should warrant, it might make and sell the smaller unit. Right now it's content with its middle market.

Raytheon has thoughts on still another "middle market" possibility. It is toying with the idea of joining up with builders to put the Radarange into new homes as a built-in integral unit. This idea has the appeal of tying in with the trend of other manufacturers to decentralize the kitchen by breaking up stoves, refrigerators, and freezers, for easy installation (BW—May1'54,p56).

## Installment Credit:

It's dropping every month

(Millions of Dollars)

	Borrowed	Repaid	Net Change in Installment Credit
<b>Last Year</b>			
January	\$2,595	\$2,095	Up \$500
February	2,585	2,173	Up 412
March	2,713	2,276	Up 437
<b>This Year</b>			
January	\$2,211	\$2,301	Down \$90
February	2,243	2,320	Down 77
March	2,200	2,412	Down 212

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## Consumers Stay Wary

The U.S. economy has for years owed a great deal to the consumer's willingness to go into more and still more debt via installment buying. Now the consumer is showing a strong inclination to pay that debt off (table, above), and the experts don't like it.

This trend is one reason why Administration economists are restraining their enthusiasm over the signs of a new steadiness in business (BW—May8'54,p27). They hope the consumer will go back to his normal peacetime habits, but they don't know how to make him do it.

A year ago, he was performing according to tradition. In the first quarter of 1953, he took on \$1.3-billion more of installment debt than he paid off. By the first quarter of this year, he was holding down on new commitments, increasing his payments on old debts. The result was a net drop of \$379-million in installment debt outstanding during the quarter. If this kept up over the year, it would represent a hefty drop in buying.

• **Categories**—Three of the four categories of installment debt, as classified by Federal Reserve experts, shared the downturn in March, the latest month for which figures are available. Only personal loans showed a gain in new commitments over repayments. In other groups:

• **New auto installment credit** came to \$294-million, compared with \$1.2-billion during March of 1953. Repayments rose, however: \$1-billion this March, against \$947-million a year ago.

• **Other consumer goods paper,** mostly household appliances, showed

new commitments of \$566-million, compared with \$710-million a year ago, while repayments showed a \$23-million rise.

• **Repair and modernization loans** came to \$103-million this March against \$127-million the year before. Repayments were \$107-million this year; \$100-million the year before.

• **Inducements**—Walter Williams, Under Secretary of Commerce, is telling business audiences that salesmen have a responsibility to get the buying public "back into the normal habit of expanding consumer debt."

The Administration has no particular plans for reversing the present trend, except for home modernization credit. It has recommended legislation to liberalize Federal Housing Administration-insured loans by increasing the repayment period from three to five years, and raising the maximum amount from \$2,500 to \$3,000. How this suggestion will fare in the wake of FHA scandals isn't clear.

Some officials expect the big consumer finance companies to take the lead and offer longer repayment periods on new autos. The present average 24-month maximum contracts might be replaced with 30-month repayment plans. Household appliance payments, still limited to 18 months by many department stores, might be extended to 24 months. Chain stores and appliance dealers are already offering 24 months on many articles.

The only other real hope in the minds of Administration economists is a parade of new products so dazzling that consumers would forget their caution.

Lawyers from both sides in "fair trade" cases now in the courts have many different words for price maintenance. At right the discussion opens; below are close-ups of men and their opinions.



## Fair or Unfair Trade: It All Depends



**IT'S DEAD** says Saul Stone (Schwegmann Bros.). Fair trade protects the inefficient retailer, will "die under its own weight," he says.



**UNSETTLED** says Abraham Lowenthal (Sam Goody). Legal devices won't decide the issue. He adds, "It must be settled on basic facts."



**PHONY** is how William Simon (American Bar Assn.) looks at it. "There's nothing fair about fair trade—it's like a Russian peace proposal."



**IT'S RESPECTABLE** says Winston Pickett (General Electric). "A philosophy—to be entered into as seriously as a marriage vow."



**JUST** says Lewis Bernstein (retail jewelers). "Every manufacturer has the right to set his own prices at the level he chooses."



**SACRED** says George Chapman (Sunbeam Corp.). "Fair trade embodies the Ten Commandments and the Sermon on the Mount."



## Where You Sit

The men in the pictures on these two pages are engaged in a hot debate. They are lawyers, and they are up to their larynxes in a full day's discussion of the future of fair trade. They have some big questions on their minds:

- Can resale price maintenance be enforced?

- Should I advise my clients to set minimum resale contracts on their products?

- Does fair trade apply on goods shipped across state lines?

- Can the constitutionality of fair trade laws be attacked successfully in the courts?

- **Lawyers' Field Day**—This session, sponsored in New York City last week by the Practising Law Institute, was all the more pointed because of the men who took part in the panel. The 12 men represented companies that are in the thick of the struggle over fair trade—Sam Goody, the Manhattan cut-rate record dealer; Schwegmann Bros., the New Orleans supermarket operator that carried its case to the Supreme Court twice; Sunbeam Corp., the country's most violent partisan on behalf of fair trading. There were others, from both sides.

The issues were thoroughly aired—in lawyers' language that still failed to conceal the heat and bitterness of the battle among retailers.

- **Troubled Waters**—The issues that came to the fore arise from the fact that fair trade is in deep trouble for the second time since the war.

The first time was in 1951 when the Supreme Court, in the Schwegmann case, took the teeth out of the resale price maintenance system as it was then

set up. It declared that the Miller-Tydings law, the federal enabling act, was too narrowly drawn. Under it, the court said, states could not enact fair trade laws that would extend resale price maintenance to merchants who did not sign fair trade agreements. In other words, you couldn't make non-signers obey your price minimums.

Congress plugged the hole with the McGuire law, which specifically makes it legal to force nonsigners to observe minimum prices. But the law had no sooner been signed by President Truman than fair traders found that things were still very much up in the air, that they still faced both legal and economic threats. These threats have continued to grow. Here they are in the order of their importance, as they were faced at the PLI session:

- **Threat No. 1.** This is simply the existence of widespread price-cutting—particularly by discount houses—in appliances, watches, pens, and other fields. The reality of this threat was either tacitly or openly admitted by every man at the conference. Indeed, this was the main point of the session, and it was stated explicitly, in terms that have become very familiar, by a proponent of fair trade. He was Lewis Bernstein, counsel for Coty, Inc., and for retail jewelry groups. He said flatly:

"Retailers have gotten little or no enforcement help from manufacturers."

He meant that they haven't been bringing enough suits against the price-cutters. This raises a major point about fair trade: There are few economic defenses you can use legally. Of course, W. A. Sheaffer Pen Co. has recently gone so far as to buy back inventories

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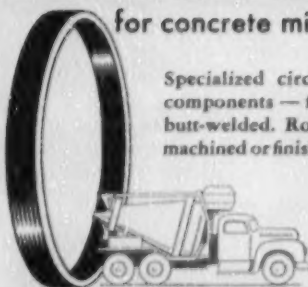
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## "... hardly exhausts the legal difficulties facing fair trade ..."

FAIR TRADE starts on p. 122

of its pens from retailers who cut prices. But even so simple a method as refusing to sell to price-cutters can run the risk of antitrust charges—a point made by government lawyers on the panel.

The problem of enforcement brings up:

**Threat No. 2.** The biggest problem in enforcement is the interstate commerce "loophole."

This opened up back in the old Miller-Tydings days as a result of the now-famous Wentling case, which involved the shipment of fair-traded goods from one fair trade state into another. The goods were admittedly sold at cut-rate, but the court dismissed the case against Wentling, the price-cutter. In essence, the court put interstate commerce above the state fair trade laws.

In pushing through the McGuire act, the fair traders tried to plug the "Wentling loophole" by prevailing on Congress to declare that state fair trade laws "do not impose a burden on interstate commerce." In short, the fair trade statutes of one state apply to goods shipped into another. This interpretation has been upheld by a Baltimore federal court.

• **New Questions**—But what if you ship from a state that has no fair trade laws into a fair trade state? Does the law cover shipments out of Texas, Missouri, Vermont, or the District of Columbia, none of which has price maintenance laws?

This is a burning issue. Several discount houses have now set up shop in Washington, D. C. (including Korvette and Masters of New York), and are reportedly doing a large mail business in fair-traded goods.

At last week's session in the Statler Hotel, Jerrold Van Cise, the panel moderator, called this "fair trade's most vital point."

Most pro-fair-traders feel that the McGuire act covers these shipments out of non-fair-trade states. However, Ephraim Jacobs, Justice Department antitrust expert, said point-blank that the law as it stands "would not apply."

Another lawyer, William Simon, the American Bar Assn.'s antitrust expert, had a different angle. He thought the advertiser would be O.K. as long as he didn't have an outlet in the fair trade state. But even that was questioned. One view was that a mail-order operator would be liable if he shipped price-cut goods into a fair trade state where he had a branch outlet.

But this hardly exhausts the legal difficulties facing fair trade. There is also:

**Threat No. 3.** This is the constitutional issue, still alive and kicking despite the claims of the pro-fair-traders that the Supreme Court settled the issue when it refused to review the second Schwegmann case. This was the case in which the New Orleans supermarket operator tried to upset the McGuire act on the grounds that forcing fair trade minimums on nonsigners violated the "due process" clause of the Bill of Rights.

Many observers feel that, by refusing to rule on the specific point, the Supreme Court merely left things up in the air. Meanwhile, state and lower courts have been busily handing down decisions bearing on this and other constitutional issues.

Some of these cases have ended in victory for the fair traders, as in Indiana and New Jersey, where courts upheld nonsigner provisions in the state laws.

But in several cases the anti-fair-trade forces have succeeded in winning important successes. In each case, the legal issue involved the legality of the nonsigner clause.

In Florida recently, the supreme court—for the second time—declared the state fair trade act violated the state constitution. In Nebraska, a lower court followed suit, but the decision is being appealed. In Georgia, the legislature passed a new law after the state supreme court threw the old one out—but the court is expected to continue its hostility. And in Michigan, where the fair trade law was invalidated during the hiatus between the two federal laws, nothing has been done about a second law.

• **Other Problems**—At last week's session, other murky legal areas in fair trade were also held up to see if some light could be seen through them.

Trading stamps were one problem. These are the "green stamps" and the like that retailers give out for redemption later for premiums. Legal action is being brought by fair-trading companies who charge that this form of sales incentive, when applied to their fair-traded goods, is actually price-cutting.

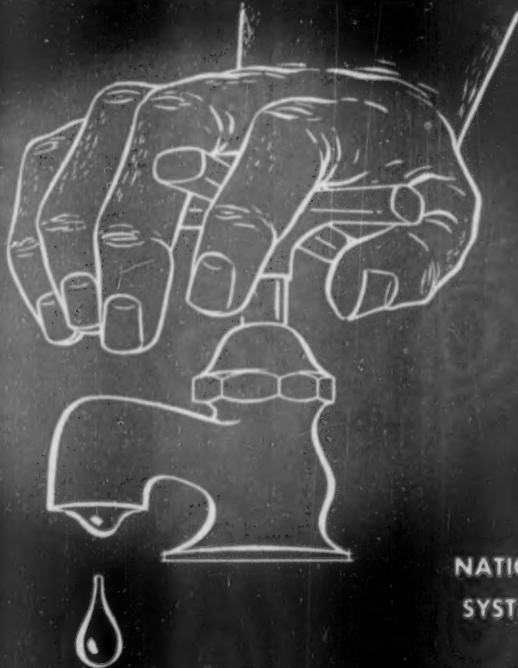
The question involving fair trading manufacturers who own their own retail outlets and who also sell to other retailers remains unsettled. Is this horizontal price-fixing and therefore in violation of the antitrust laws?

• **Last Word**—Summing up the present confusions in a phrase, FTC Commissioner Albert Carretta made this observation about the McGuire act to the PLI lawyers:

"What bothers me is that sometimes I'm not positive as to what the words used by Congress mean."

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Only air is taken more for granted than our daily water supply. Even beyond the city water mains—in homes with modern water

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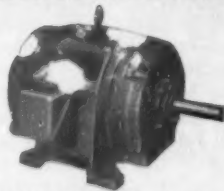
Electric motors supply the power for water pumps—and Wagner Electric Motors are the first choice of many of the nation's water pump manufacturers. That's because dependability is a prime requirement for a pump motor.

In a way, the fact that we take our water for granted is a great compliment to the reliability of our water systems—and to the electric motors that power them!

Wagner Motors like these furnish plenty of power for pumps



Type RP—Open type polyphase squirrel cage. Sleeve or ball bearing. 1/6 to 400 hp.



Type XP—Splash-proof polyphase motor. Single speed, ball bearing. 1/6 to 250 hp.



Jet Pump Motors—Single phase, capacitor start, open type. 1/4 to 1 hp.



Close-coupled Pump Motors—Single phase, 1/4 to 5 hp. Polyphase, 1/4 to 125 hp.



WAGNER ELECTRIC CORPORATION  
6460 PLYMOUTH AVE., ST. LOUIS 14, MO., U.S.A.

BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

ELECTRIC MOTORS  
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INDUSTRIAL BRAKES  
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AIR AND HYDRAULIC

*The most  
convenient  
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New York*

On the smart East Side,  
with theatres, fine shops and  
other attractions nearby.



**HOTEL New Weston**  
MADISON AT 56th • NEW YORK 22, N. Y.  
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Protect your inactive business records with proper storage. **LIBERTY STORAGE BOXES** are constructed of highest test corrugated fibre-board. Dust-proof, spill-proof protection. Liberty's storage system assures fast-finding of any record. Try **LIBERTY BOXES** for quality and low cost. 25 stock sizes. Sold by leading stationers.

Clip this ad to your letterhead  
**FOR FREE BOOKLET**

- 1 Record retention chart tells you how long to keep specific records.
- 2 Gives complete information for best procedures in record storage.

**BANKERS BOX COMPANY**  
720 S. Dearborn Street • Chicago 5, Ill.

## FTC Clears General Foods

Finding that company's "deals" aren't discriminatory is a sample of commission's new policy . . . Uncle Sam boosts milk vending machines . . . Contest Prize: Cadillac or Model T . . . Business to get nose count . . . Premiums upgrade.

While the Democrats were running the Federal Trade Commission, the courts came to their aid with what has come to be known as the "per se" doctrine. In essence this meant that all FTC had to do to nail a company under the Robinson-Patman Act was to show that there had been a violation. It wasn't necessary to prove that someone had been injured or that monopoly had resulted.

The Republican FTC has been backing away from this doctrine. Last week it rejected it once again when it dismissed a price discrimination suit against General Foods Corp. on the grounds that the charges were not supported by the evidence presented by FTC lawyers.

The case, though not unique, was unusual in FTC annals since it did not involve discrimination among General's customers at the wholesale or retail level, but rather against its own competitors. In this case other manufacturers of pectin products were involved.

• **General's Deal**—The pricing practice challenged in FTC's complaint hinged on special cut-price "deals" offered from 1940 to 1947 by General Foods in the territory west of the Rockies. It was—and is—in this area only that General Foods' Certo and Sure-Jell, used in making household jelly, had any serious competition from the pectin products of other manufacturers.

General Foods admitted that in order to confine and keep this competition from spreading east, as well as to keep its own western sales up, the company authorized all its wholesalers, jobbers, and retailers to sell one additional bottle of Certo, for example, for 3¢ when the customer bought two bottles at regular price. Pectin was sold at the same "deal" price to all buyers in the western market area.

• **Market Headway**—The success of these deals was spelled out in several documents taken from General Foods files. They show that significant gains were made against the local competition of other West Coast pectin makers. Immediately prior to the first "deal" year, these competitive brands had about 54% of the Pacific Northwest market, while General Foods had 46%. By 1942, the third "deal" year, while competing brands fell off to about 38% of the market, General Food's share had risen to about 63%.

Competing makers of pectin out West testified that their business had been adversely affected by the deal offers. But these same companies actually showed a general increase in dollar volume all through the war years, which continued with normal fluctuations up to 1951. (General Foods stopped the deals in 1947.)

• **Minority View**—The dissent of James M. Mead, former chairman under the Democrats, clearly indicates that the old commission probably would have found General Foods violated the law. Mead's dissent goes right down the line of those urging protection of the small businessman from competitive practices of bigger companies. He stressed the evidence on relative shares in the local market, even though it was incomplete. He felt changes on that score should be the test of whether or not a concern is losing ground, not just dollar volumes.

## Automatic Cows

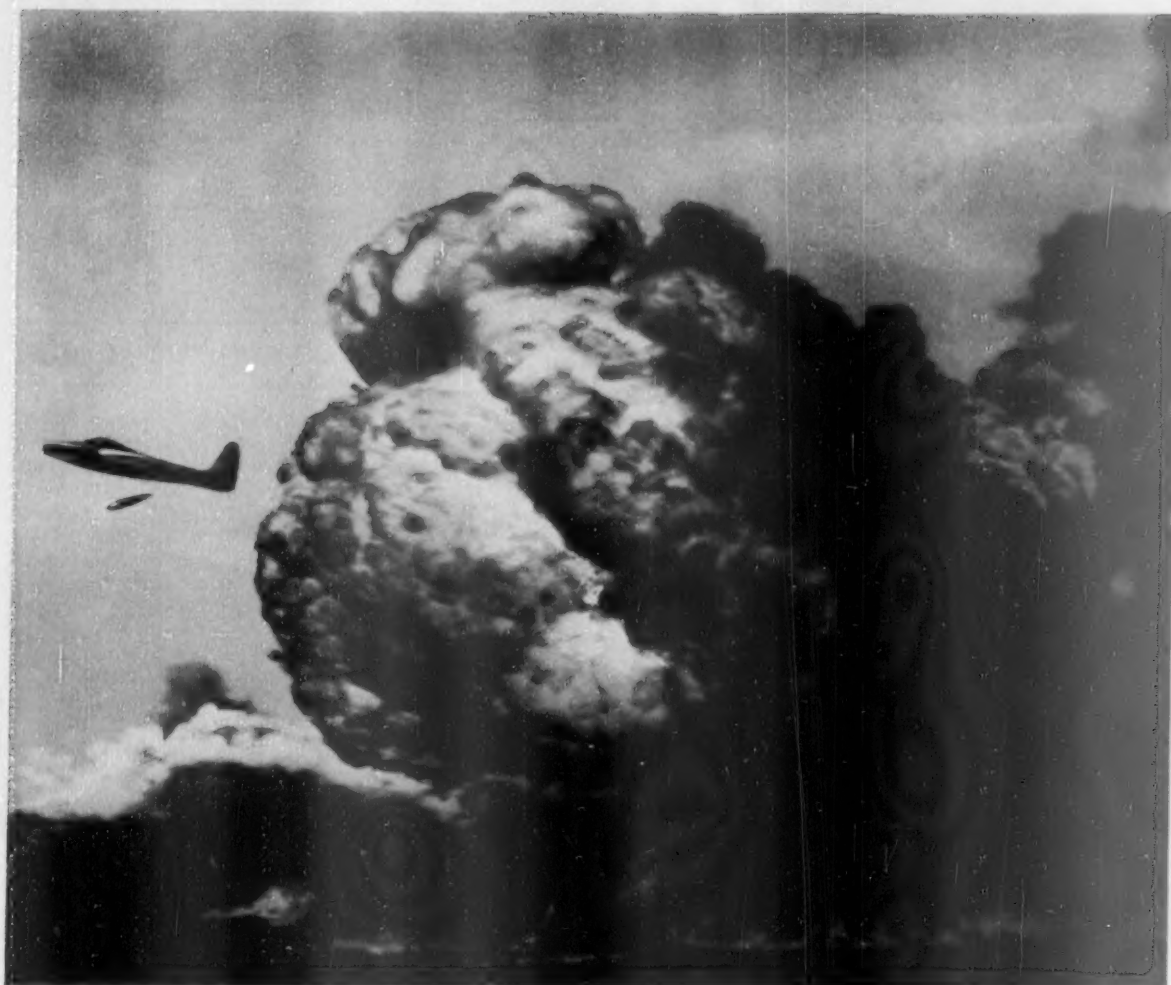
A renewed marketing campaign to sell milk like soda pop out of coin-operated vending machines is getting a big assist from government officials in Washington.

The Agriculture Dept. and congressmen from dairy states see the program as a way to help unload the 600-million-gal. milk surplus that the government owns. Agriculture Secretary Ezra Benson announced last week that he's installing four automatic vending machines in his building, and added: "If I have my way, they'll be in every department in the government—even the White House."

• **Impulse Market**—The milk and vending machine people have been trying for years to overcome the technical problems of refrigeration and sanitation (BW—Feb. 14 '53, p. 70). Now they think they have done it, and they have their eye on still bigger goals. They hope to (1) open up the untapped market of milk drinkers who might like quick cold pick-me-ups while they're shopping, waiting at the airport or the filling station, or having a refreshment break at work; and (2) create a new market among an estimated 50-million Americans who don't drink milk at all.

• **Sales Campaign**—The object of the current campaign is to sell dairymen and the public on the idea of automatic





# Hell on Wings

Not all Fletcher wing tanks carry fuel. Some are loaded with jellied-death, known as Napalm. Jettisoned in flight, these tanks burst and splash their 1500° havoc over a blazing hundred-yard area.

To the job of putting hell on the wings of American planes... as well as that of increasing aircraft fuel capacity... Fletcher brings inventions, skill and a production philosophy which have helped win two wars, and which today help keep the free world strong.

*The Constitution encourages progress by securing for inventors "the exclusive rights to their discoveries." At Fletcher Aviation, as in countless other industries, this incentive sparks the inventions which make America safer, more comfortable.*

*Such a vital incentive is worthy of most careful protection.*

**FLETCHER**   
**aviation corporation**

World's largest designers & manufacturers of external wing tanks  
 190 WEST COLORADO STREET • PASADENA, CALIFORNIA  
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milk machines. The National Milk Producers Federation and its local member groups are sponsoring one educational program, the "Dairy-Vend Caravan," now touring the country. Kicked off by the Vendo Co. of Kansas City, Mo., it features slide film demonstrations and talks on how the automatic vendors work and can be used.

It was this Vendo caravan that caught the attention of official Washington. However, the Agriculture Dept.'s first machines are products of the Rowe Mfg. Co., Inc., of New York.

## Chance of a Lifetime

Motorists in Nashville, Tenn., were offered a wide range of luck last month.

American Oil Co., through full-page color ads, black-and-white ads, radio and TV spots, informed the city that it would give away a fully equipped 1954 Fleetwood Cadillac—or \$4,000 in cash, whichever you prefer, plus 20 "lovely natural" ranch mink scarves. All you do is sign a registration card at your nearby American Oil-Shell dealer. You don't have to buy a single thing. However, American's subconscious showed through in its ads, which suggested that "if you're going to buy gasoline, you might as well go first class and buy the best—Shell Premium." American reports that 500,000 people registered during the first 27 days of the contest. The drawing will take place over television some time in June.

• **Parody**—Hot on the heels of American's announcement, Peoples Oil Co.—which specializes in underselling other local dealers—came out with a similar announcement, but pared down to Peoples' size. Through full-page ads in the business-TV-radio weekly newspaper and a TV spot script, Peoples offered a genuine 1922 Model T Ford, "a good, clean, one-owner car with low mileage, fully equipped with safe, wide running boards, wheels, horn and spare"—or \$40 in cash—plus 20 "glamorous, pure-bred" shammy skins. As in American's contest, you don't have to buy a drop of gas, but while you're registering at a Peoples' station, you might as well fill up your tank with Peoples' gasoline, and you're always a winner, say the ads. Peoples—which got off to a later start—got about 10,000 takers in the first five days of the contest. Its drawing will take place on June 5, at one of its stations.

## Delayed Count

Administration economists and business leaders see new hope for a series of censuses that will turn up firm statistics on business, manufacturers, and mineral industries. Most recent

censuses now are for 1948 for general business, 1947 for manufacturers, and 1939 for mineral industries.

In 1948, the Republican-led 80th Congress passed a basic law calling for these three censuses in each year that ends with "4" or "9." This would have meant a census this year, covering 1953 statistics. However, the economy-minded Republicans last year threw out the appropriations.

Last week, the House passed a bill providing for the censuses in 1955 to cover 1954 experience, and the Senate is expected to approve. Thus, the censuses may be taken a year later than the 80th Congress had prescribed, but the basic law will prevail in the future. The next censuses after these are still scheduled for 1959.

• **Strong Backing**—After the authorization by Congress, there will be one more hurdle for the census project. Congress will still have to appropriate the \$13-million to \$15-million that the Census Bureau needs to take, tabulate, and publish the censuses. However, the Bureau of the Budget has approved the request, and the project has strong backing.

## Big-League Premiums

The humble premium has given way to the times. Like almost everything else you can think of, it has been upgraded.

The trend could be seen clearly last week at the Premium Buyers' Exposition in Chicago, where a buyer for one of the nation's biggest premium users put it this way:

"We do very well with premiums that would have frightened us even two years ago."

• **Big Deals**—Today, the \$1 and \$2 offers are common, and usually successful. Companies not only offer the ever-popular items such as silverware, kitchenware, plastic items, china, and glassware but also such expensive ones as outdoor cookers, traffic appliances, and power tools.

What's more, companies don't lose money on these deals. Most coupon offers today are what the trade calls "self-liquidating"—which means that the customer pays enough to cover the cost of the premium and the mailing.

"Nobody knows where the top is on self-liquidating offers," adds the same buyer. He and the rest of the trade are watching results of a recent offer of a \$10 sterling silver dish to buyers of Meadow Gold butter.

• **High Volume**—The Premium Advertising Assn. of America, which puts on the annual show, estimates that the premium business this year will hit a volume of about \$1.3-billion, as against some \$1-billion last year.

• **More Users**—Almost every kind of company is becoming a premium user. Appliance dealers, for example, are becoming big users.

Supermarket operators are also going in heavily for premiums. One of them, Loblaw in Buffalo, N. Y., added a new twist: It allows the customer to buy additional coupons for each dollar of purchases.

There's another trend at work, too. Premiums for dealers and salesmen as part of contests and incentive programs are gaining rapidly. This use now accounts for about half the total premium volume.

## MARKETING BRIEFS

The discount house battle opened on a new front when Fostoria (Ohio) & Rural Supply Co. brought suit against Fostoria Review-Times and Seneca Radio Corp., operator of Fostoria's radio station WFOB. The discount house seeks an injunction against the paper and the station for refusing to accept its advertising.

General Motors, in hot competition with Ford, outbid its own dealer in Hartford, Conn., for some state government business. GM quoted the state a low price of \$1,194 on its Chevrolet—against \$1,369.40 quoted by Sloate Chevrolet Co., lone Hartford Chevy dealer.

Stix, Baer & Fuller is last of St. Louis' big department stores to follow the shopping center trend. It plans a \$61-million center, called Westroads, in the city's suburban area. Stix, Baer held back for four or five years on the theory that it could learn from the mistakes of earlier center planners.

Price war in hearing aids appears to be in the offing. In a direct challenge to Zenith, Acousticon offers a three-transistor device for \$99—which the company says is \$26 lower than the competition.

General Mills sold its home appliance business to Illinois McGraw Electric, subsidiary of McGraw Electric. The line that changed hands consists of irons, mixers, and the like, "sponsored by Betty Crocker," of General Mills' cake mix division.

Strategic retreat: Twentieth Century-Fox assured its exhibitors last week that it would no longer require them to use only stereophonic sound with its CinemaScope releases. Fox's decision apparently stems from its battle of the movie systems with Paramount's new VistaVision (BW—May 8 '54, p.42).

## playing the best supporting role in TV

More than forty years ago, at Ketchikan, Alaska, four 300-foot Blaw-Knox self-supporting "wireless" towers were installed. And they are still providing good service, despite the extreme cold, wind, ice and other hazardous weather conditions.

Today, we are designing and building the most modern types of TV towers for the most modern types of antennas. These antennas are often 100 feet or more in height and weigh 10 tons or more. Yet they must be rigidly supported by towers at heights which range over 1000 feet in the air . . . in order to provide a clear, steady picture in the home.

Blaw-Knox designs each tower for its specific

application. This complete flexibility is characteristic of our research, engineering, testing and fabricating services . . . and a key reason why Blaw-Knox plays the best supporting role in TV.

In many industries, Blaw-Knox accomplishes outstanding engineering achievements. They improve production, reduce costs, make better products possible. In all probability, you would find it profitable to investigate some of the products and services offered by the Blaw-Knox divisions listed below.

### **BLAW-KNOX COMPANY**

*Farmers Bank Building • Pittsburgh 22, Penna.*

*before you buy, see if Blaw-Knox makes it*



**Blaw-Knox Equipment Division**  
Pittsburgh 38, Pa. and Elyria, Ohio  
Chemical and Process Equipment  
Clamshell Buckets  
Gas Cleaning Equipment  
Open Steel Grating  
Radio, TV and Transmission  
Towers  
Road Paving Machinery and  
Construction Equipment  
Steel Forms for Concrete  
Construction  
Steel Plant Equipment—Water  
Cooled Doors, Frames,  
Reversing Valves, etc.,  
for High Temperature Furnaces

**Buslovak Equipment Division**  
Buffalo 11, N.Y. and Mora, Minn.  
Chemical, Dairy and Food  
Process Equipment  
**Chemical Plants Division**  
Pittsburgh 30, Pa.  
Engineers and Constructors of  
Chemical Process, Industrial,  
Petroleum and Atomic Energy  
Plants  
**Foots Const. Equip. Division**  
Nunda, N.Y.  
Black Top Road Pavers  
Concrete Road Pavers

**Lewis Machinery Division**  
Groveton, Pa.  
Rolling Mills and Auxiliary  
Machinery for Rolling Steel and  
Other Metals  
Ordnance Equipment  
**Power Piping and Sprinkler  
Division**  
Pittsburgh 33, Pa.  
Prefabricated Piping for All  
Pressures and Temperatures  
Automatic Fire Protection Systems  
Pipe Hangers

**National Alloy Division**  
Pittsburgh 38, Pa.  
Alloy Steel Castings for Extreme  
Temperature, Abrasion and  
Corrosion Resistance  
**Union Steel Castings Division**  
Pittsburgh 1, Pa.  
Heavy Industrial Steel Castings  
Ordnance Castings  
**Rolls Division**  
(Pittsburgh and Lewis Rolls)  
Pittsburgh 1, Pa.  
Iron, Steel and Alloy Rolls for  
Rolling Steel and Other Metals





C. W. LaPierre, heading GE's jet engine manufacture, says: "The activity of our division has a negative correlation to the price of GE stock." That typifies the management problem in a business tied to the U. S. military.

## Getting Along on a Lean Diet

This week, General Electric Co.'s Aircraft Gas Turbine Div. (AGT), Evendale, Ohio—headed by C. W. LaPierre (picture)—announced that its new J-73 jet engine is in production. It revealed also that another, more powerful engine is well along the development stage.

The twin announcement was highly significant technically—and just as important from a management point of view. It means that management is face to face with this problem: Now that a lot of the technology of jets—in design and production—is licked, how does a large-scale producer such as GE keep a division healthy when very likely there won't be any demand for mass output except for short periods of time?

• **Power**—Jet engines today are at a technical stage where quantity production would be the next natural step. There's no need to wait while engineers try to improve the design. The J-73 is

50% more powerful than GE's J-47, which powered most of the fighters in Korea. Aircraft engine makers are actually ahead of airframe makers in technological development. For years, frame makers cried for more and more power. Today, they have more power than they can use, with apparently little limit to what can be made available. The block ahead is not power, but the heat barrier (BW—Feb. 20 '54, p130)—friction on frames resulting from high speeds.

Many of the technical production bugs have been solved, too. One look at GE's Evendale plant (near Cincinnati) and even a nontechnical man can tell that mass production need no longer be a problem in a future crisis.

• **Dilemma**—The big remaining headache in the jet engine business is one that has even Washington's planners—who don't have to worry about profits—rubbing their brows. From a Washing-

ton viewpoint, it's simply this: how to maintain an essential defense industry without immediate need for quantity production. For GE planners it's a question of how to stay solvent running a business that's built on the idea of mass production—but has no large orders it can bank on over long stretches as in an ordinary business.

C. W. (Jim) LaPierre, vice-president and general manager of AGT, says of his division: "Our function is to supply aircraft engines in time of war. There's no other reason for our existence."

That's putting the case bluntly, but it's the kind of realistic thinking that LaPierre—a virtually self-educated research engineer—requires of himself and his division. In a sense, it's true, though you have to take into account AGT's plans for cracking the commercial jet transport market by 1955 or 1956—a date many skeptics would laugh down in view of the British

## A Coal Miner From Shickshinny Tells Why . . .



# *Lackawanna Land is right for your new plant site!*

### **"The World's Best Anthracite Lies Under Lackawanna Land"**

Anthracite fuel and other raw materials, as well as adequate electric power and an abundance of water, are available for new plant locations in Lackawanna Land. Deposits of limestone and salt, gypsum and other minerals also are at hand.

Lackawanna Land is the ideal location for heavy or light manufacture. A substantial supply of skilled and unskilled labor, experienced in a wide range of industries is available in these communities whose housing accommodations and schools are capable of handling new residents.

The facilities of the modern Lackawanna — its short-line mileage, expansive terminals, yards, Diesel locomotives and harbor operations in the Port of New York guarantee dependable transportation for finished products to all American and foreign markets.

For information and confidential assistance, without obligation, please contact

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### **Plant Site of the Month**

167 acres — Scranton, Pa. . .  
Coal breaker, craneway; adjacent Lackawanna River.  
Available immediately.



## **Lackawanna Railroad**

**Shortest Rail Route between New York and Buffalo**

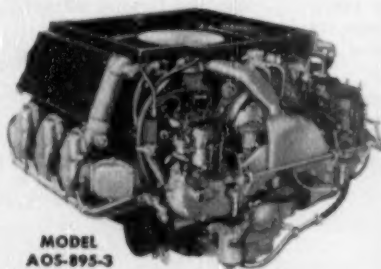
# MORE POWER for the TOUGH JOBS

DIAMOND T  
MODEL 622 DUMP TRUCK,  
POWERED BY  
—150 HORSEPOWER AT  
3,000 R.P.M.



More power, and better power—that's what you get when you buy a truck with Continental Red Seal under the hood. Better because the engine delivers more power in relation to its weight, which means higher payload capacity. Better, too, because the output is delivered at engine speeds conducive to fast over-the-road travel with a minimum of shifting. For the really tough jobs, choose a truck with a power plant that's built for the tough jobs and backed by engine experience dating from 1902.

The outstanding series of air-cooled tank and military vehicle engines developed jointly by Army Ordnance and Continental, and thoroughly combat-proved in Korea and elsewhere, are now available commercially, too. They include models developing 375, 500, 810 and 1,040 horsepower, thus greatly extending the range of the Continental line. For information on this and other models in this series, address Continental Motors Corp., Military Divn., 76 N. Getty St., Muskegon, Michigan.



MODEL  
AOS-895-3

## PARTS AND SERVICE COAST TO COAST

1915 BROADWAY, NEW YORK 23, NEW YORK • 3817 S. SANTA FE AVE., LOS ANGELES 58, CALIF.  
8218 CEDAR SPRINGS ROAD, DALLAS 9, TEXAS • 919 S. BOSTON ST., ROOM 100, TULSA, OKLA.  
1252 GARLEIGH DRIVE, EAST POINT (ATLANTA) GA.

**Continental Motors Corporation**  
MUSKEGON, MICHIGAN

Comet's current fate (BW—Apr. 17 '54, p27). The jet business at any rate will always be closely tied to military demands.

For GE as a whole, the question is mighty important, because AGT has become the largest single division in the company in sales.

• **Medicine**—What do LaPierre and his staff plan to do to keep AGT vigorous?

They have a couple of long-range projects to begin with. One is a new five-year planning program, including commercial engine development. Another is a joint marketing-advertising-industry study to find ways of convincing Congress and the military that because of the risks in aircraft development and the constant need for reinvesting capital, aircraft people should be allowed a much larger return on investment than at present in contract renegotiation.

Says LaPierre: "We feel like a Ponzi. Everything is fine until somebody asks for a return on investment—and then it isn't there because you have to reinvest almost everything you are allowed to earn to keep up with developments. As it is, the activity of our division has a negative correlation with the price of GE stock."

• **Short-Range**—There are more immediate solutions, too. One is to rely heavily on subcontractors to give you the capacity you'd need for real quantity production; this means you have to keep your subcontracting organization alive by using it even when production is relatively low. You also use as much government-owned plant as possible for the work you do yourself. Such moves obviously cut down your fixed charges. GE prides itself on its subcontractor program developed during the Korean war (BW—Nov. 4 '54, p61).

Subcontracting also lets you keep for yourself a large part of the production of engines such as the J-73 that have a big future ahead of them. As soon as a particular model becomes slightly obsolescent, you can license its production to somebody else. Right now, GE is starting to phase out the J-47, though it still has a sizable backlog for it.

Diversification, some might say, should be another answer. But LaPierre is convinced—as is Pratt & Whitney's William P. Gwinn—that for engine makers diversification very far afield is dangerous—you lose touch with airplanes too easily.

• **Organization**—Finally, you have to organize yourself to be certain that no phase of the business is ever neglected. For AGT, that process began last October, after the crush of Korea and the military air buildup was eased.

Up till then, AGT was interested chiefly in producing J-47s as fast as possible, left organization to solve itself.

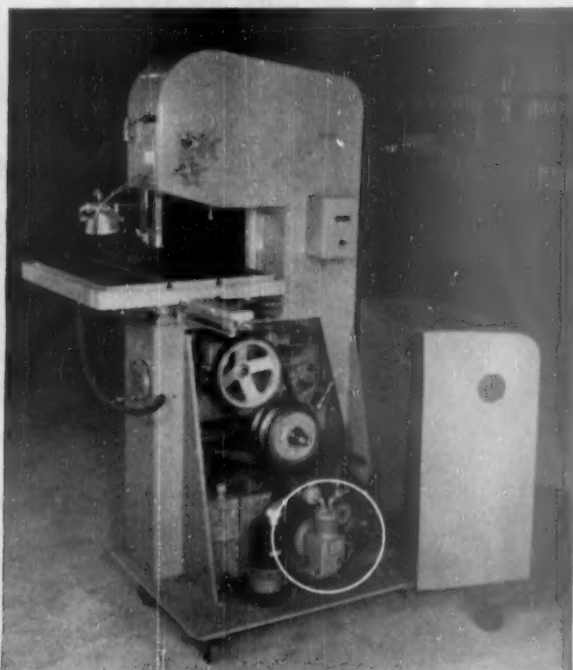
Throughout the entire AGT division, there was little of the guiding General



*DeVilbiss helps you get the most from the spray method*



**1. FINER FINISHES**—The DoAll Company relies on DeVilbiss spray equipment for durable, gleaming finishes on its band machines, surface grinders.



**2. COMPONENT PARTS**—DeVilbiss Air Compressors supply pressure that forces a jet of air and coolant against the saw blades in DoAll Band Machines.

## DEVILBISS HELPS DOALL TWO WAYS!

The DoAll Company, Des Plaines, Ill., produces saw-band machines capable of cutting every known material. It also makes surface-grinding machines so precise they can erase a pencil mark on a slab of steel without marring the surface!

DoAll uses DeVilbiss equipment two ways: they use DeVilbiss Spray Guns and Spray Booths to paint

their world-famous tools, and they use DeVilbiss Air Compressors as a component in their band machines.

Says DoAll's Clinton Rosene, "We give our customers quality throughout the machine—that's why we selected DeVilbiss equipment. DeVilbiss Air Compressors give dependable service with little or no attention. Our DeVilbiss spray-

painting equipment assures attractive, long-lasting finishes."

DeVilbiss can help you improve your product with finer finishes, and with quality components such as hose, hose connections, air-line regulators and filters. Get complete facts, today, from your nearest DeVilbiss jobber or branch office; or write us direct for free literature.

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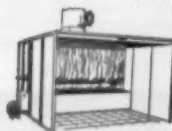
Air Compressors



Hose and Connections



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FOR BETTER SERVICE, BUY

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BRANCH OFFICES AND DISTRIBUTORS IN PRINCIPAL CITIES THROUGHOUT THE UNITED STATES, CANADA AND THE WORLD

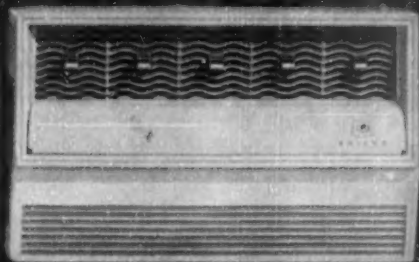
# More People Own a PHILCO than Any Other Room Air Conditioner

**T**HE facts speak for themselves! For 17 years, Philco has led in Room Air Conditioner sales because of unmatched value, exclusive features and proven dependability. Now for 1954 Philco leads again with sweeping advances in design plus new low prices. Compare—get the full story of Philco leadership.

*Don't Settle for Less*

**NEW FOR  
1954 WITH**

*Flush  
Mounting*



**Takes up No Space  
Inside Your Room**

It's completely flexible! In most cases it will be mounted flush with the sill as shown above, yet it's also designed for flush mounting with the outside building line.

**HEATS as well as  
COOLS**

Not with electric coils, but with a Reverse Cycle System that heats the same size room it cools and heats as fast as it cools. It's unmatched for year 'round comfort.

**TRUE Automatic  
Temperature Control**

Not just a thermostat, but a complete automatic system for constant comfort. Unit never over-cools; never stops dehumidifying. Adjustable grilles provide draft-free air circulation.



**MODEL 86KL, above, is just one of a complete line designed to fit every purse and room. More people own a Philco than any other Room Air Conditioner. Get the full story. See your Philco Dealer.**

Electric philosophy of giving operating people authority in every field of their business. That is, decentralization: dividing up your organization into a number of more or less autonomous departments and sections, each treated as a unit, with its own profit-and-loss system of accountability, dealing almost at arms length—at least for bookkeeping purposes—with other departments.

• **Dividing a Division**—That was what LaPierre agreed AGT needed. But how do you do it in a division that, in a sense, makes one product for one customer, and mostly in one place?

Other GE divisions break themselves down by products. AGT, instead, divided the job of jet development and production into steps and let each step become an autonomous unit.

There are five departments, three at Evendale and one each at Lynn and Everett, Mass. Each has a manager with a full operating staff of section managers—engineering, marketing, manufacturing, financial. Department managers report to LaPierre, who reports to John W. Belanger, head of GE's defense products group. Except for the Small Aircraft Engine Dept., the departments correspond to the steps in the jet-building process.

• **Separate**—AGT's Development Dept. comes up with basic engineering principles for components giving better performance, greater power. The Jet Engine Dept. designs and produces prototypes of engines, negotiates contracts for them, manufactures these initial models, keeps full control over design and improvements in each engine type until it becomes obsolete.

The Evendale Operating Dept. takes over for quantity production, negotiates its own contracts for quantity runs, develops speed in production methods—and when quantity orders come in, it's the money maker.

Theoretically, each department could operate as a separate economy. Jet Engines could let contracts to another maker; Operating could act as a contract manufacturer for other designers; Development could do consulting work. Actually they trade a lot on each other's ideas, and obviously some of the profit and loss accounting has to be full of arbitrary bookkeeping. But the breakdown does what GE top management demands—it pinpoints responsibility.

• **What's Ahead**—With the press of a military buildup over, and his organization fairly well set, Jim LaPierre can talk now about what lies ahead. He gives you the impression that jets—even leaving aside the top-secret atomic aircraft power project under GE's wing—have a new era laid out for them. And he can say without a smile—but not without an argument from competitors—that the days of piston engines are numbered.

The Thinking Machine  
of American Business



Look to

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Timely, accurate construction news service East of the Rockies

TAKE THE FIRST STEP IN EVERY SALE



PRESIDENT Ralph Persons, who mothers Sun Chemical's brood of subsidiaries, says . . .

## Clinic Tightens Family Ties

Sun's foster children were all living under the same corporate roof; but home atmosphere was lacking until the company set up its Executive Idea Clinic.

When a corporation becomes a parent, its first consideration usually is the profitability of its subsidiaries. It is soon aware, however, that business parenthood is a two-way proposition. The subsidiaries expect something in return. The Sun Chemical Corp. discovered this.

This week, as it has every second week since January, Sun brought to its Long Island City (N. Y.) headquarters, two of its subsidiary managers and gave them that something in return: in this case, a long peek at how things are done at headquarters and a chance to air their complaints.

Sun has an organization complex enough to put many a larger company to shame: 32 divisions and subsidiaries, 29 plants, 30 warehouses, and 60 sales offices. But until a few months ago, for all its sprawling structure, and probably because of it, Sun lacked something important—unity. Everybody was living under the same corporate roof, but it was a boardinghouse roof, not a home.

• **Chaos**—It's not surprising that Sun lacked unity. Most of its subsidiaries were once small, privately held com-

panies. Some of these, for instance those in Sun's ink-making group (including the George H. Morrill Co., the Sigmund Ullman Co., and the Fuchs & Lang Mfg. Co.), go back to the mid-19th Century. Sun, itself, was formed in 1929 (it was then called the General Printing Ink Corp.) to acquire the assets of several ink companies. It has spent most of its 25 years acquiring—usually through exchange of stock—a variety of other companies: ink makers, paint makers, and wax makers. They are spread throughout the country.

By 1945, it had diversified enough to warrant a name change, and it took the name Sun from one of its subsidiaries. With the exception of one subsidiary that makes printing machinery equipment, all of Sun's operations are tied together by the fact that they use raw materials based on the utilization of oil, resins, and pigments. Last year's consolidated net sales were \$42-million.

Ralph C. Persons, who has been Sun's president since 1952, says, "Taking in all those companies was just like taking in other people's children—to

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ANNUAL SPEEDWAY CLASSIC

MAY 31

MORE INDUSTRY IS RACING TO

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**WHY** is Indiana up 297% since '39 in dollar value added to goods by manufacture? States ranking 1st and 2nd in total value added by mfg. are outranked *per capita* by Indiana by 38% and 26%! (Bureau of Census, '50).

**WHY** does Indiana lead its neighbor states in new-plant value per capita—by 8%, 12%, 38%, 110% and 127%? (F. W. Dodge Corp., N.Y. construction specialists).

**WHY** did Indiana industry soar 29% from '39 to '47... then 31% from '48 to '53... to a total of 10,500 industries today?

**WHY** does Indiana outrank 46 states in percentage of employees engaged in durable goods manufacture—81% over U. S. avg.? Why are U. S. ratios topped by Indiana by 193% in percentage of population engaged in motor vehicle equipment manufacture, by 152% in primary metal industries, by 87% in non-electrical machinery, by 34% in fabricated metal industries, by 29% in electrical machinery and equipment?

**WHY** is Indiana growing 59% faster than U. S. (7-1-50 to 7-1-52)? Today's Indiana population: 4,300,000 (60% urban, 40% rural).

**WHY** does Indiana rank 3rd in U. S. in steel production (and have world's largest steel plant)... why 1st in U. S. in refrigerators, 'phones, gasoline pumps, mobile homes, musical instruments, bldg. limestone (¾ of U. S. total)... 3rd in motor vehicles & parts... 5th in rubber... why do we have world's largest oil refinery & cement plant... why so strong in rail cars & equipment, machine shop & foundry, drugs, clothing, fibreglass, bottles, wood veneers, furniture, meat packing, canning, farm machinery, jet engines, plastics, electronics, etc.?

**WHY** is Indiana blessed with such diversity—enough to fill most components needs here?

## STUDY THE REASONS ON THIS PAGE

Then, when you want further specific details, we'll bring them to you in person, if you like, or mail them (in plain envelope if you so stipulate). Write or 'phone...

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**Good Labor Relations.** Envious strike and lockout records. First in U. S. with state labor-management charter.

**Low Labor Costs.** U. S. median weekly wage of mfg. employees under unemployment compensation is 7% higher than in Indiana. And Mich.-Ill.-Ohio average is 8% higher than in Indiana. (Source: U. S. Dept. of Labor, Bur. of Employment Security, 2nd quarter, '52). Families earning under \$2000 a yr. are 16% less prevalent in Indiana than nationally; from \$2000 to \$6000, 10% more prevalent; over \$6000, 10% less prevalent. Families earning under \$6000 are 5% more prevalent in Indiana than in Mich.-Ill.-Ohio; over \$6000, 28% less prevalent.

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PANGBORN'S 50TH ANNIVERSARY • 1904-1954

**"... this meant bouncing division heads off each member of the management committee ..."**

SUN CHEMICAL starts on p. 136

board—companies differ, and their policies differ."

• **Progress**—This spring, Sun has taken several steps to try to gather in its far-flung elements—not physically, but organizationally. It has:

• Consolidated its products and selling organizations into three groups: chemicals (principally waxes); structural waterproofing, paints and products finishing; and graphic arts (the ink subsidiaries).

• Coordinated advertising, marketing, and public relations for all 32 divisions. This centralization is also being applied to administration, technical research, manufacturing, purchasing, and industrial relations.

• Brought in division managers to the Executive Idea Clinic.

• **No Politics**—The clinic was Persons' idea. He's a firm believer in (1) no politics, (2) no secrets, and (3) personal contact between executives. He wanted to indoctrinate his division heads with the same principles. Persons decided the way to do this was to put the men through an intensive week of give and take with Sun's New York management. Specifically, this meant bouncing them off each member of the management committee.

The committee was established last year. It includes the top men in research, manufacturing, purchasing, sales, administration, industrial relations, and advertising, as well as Persons and his second-in-command, secretary-treasurer Sherwood M. Bonney. It also includes the heads of Sun's operating components, to whom the division managers report.

• **Schedule**—Persons meets once a week with each committee member (except one who has headquarters in Chicago), and the entire committee meets about once a month. Sun, therefore, is run by two elements. First, Persons, who is a "strong" president and makes a great number of decisions personally. Second, the committee, whose purpose is to administer corporate policy and to provide a means of exchanging ideas. Persons, who is 58, likes relatively young men working with him, and the average age of men on the committee is 48.

• **Briefing**—A few weeks ago, Harry F. Niemeyer, manager of Sun's Southwest division, and Maurice J. "Hap" Hoover, then manager of the Sigmund Ullman paint division, reported to Persons' office for their turn at the clinic



(Hoover has since been made Sun's sales head and a member of the management committee).

Persons talked with the two men for an hour and explained the purpose of the clinic. He emphasized its two-way nature, and told them to shoot the works on complaints when they sat down with the other committee members. "Now's your chance to give 'em hell, and we'll be proud of you for it," he said. "I don't want a bunch of apple-polishers in here to tell us how fine I'm running the business."

For the benefit of either of the men who might have been nervous about throwing pies from the audience, Persons said: "Of course, criticism can remain unidentified if you prefer." He then told them they would be expected to write a full report on the clinic after they returned to their division, but he made it plain that they wouldn't be sent back home until they were entirely satisfied that they clearly understood the company's operations and had satisfied their own complaints.

Next, Persons told Hoover and Niemeyer what management is trying to do at Sun. He wants an institution, not just a financial angel. "This is a change in corporate policy; we're trying to build a stronger foundation. We must eliminate all politics. As you know, this place has been dripping with politics for years. We have no secrets around here—for the first time."

Persons talked about what his headquarters is doing for the field. "Previously, each division made its own labor negotiations—and after the damage was done, yelled for help. Now we've got Fred Crist here in New York to help you." (He was referring to Frederick E. Crist, director of industrial relations.) Crist is new in the job, took over from a man who was a specialist in various fields—but not in industrial relations. Persons says, "Wherever we thought we had an amateur, we replaced him with a professional."

• **"Make It Pay"**—Persons told Hoover and Niemeyer about the new budgeting system. As with any budget, it will require forecasts. "I know we're asking a lot, particularly in the way of forecasts, but it will put purchasing in a much better position to get good buys, and we'll be able to tell you what percent of your gross sales go for technical help, advertising, clerical help, and so forth."

Persons explains the new financial arrangement with the divisions this way. "We've always told the manager to watch his profit on sales, but now we'll tell him to watch his investment and the return on that investment." Persons likes the return-on-investment system (BW—Oct. 18 '52, p194). He figures any hotshot salesman can get volume up high, but only a real manager can



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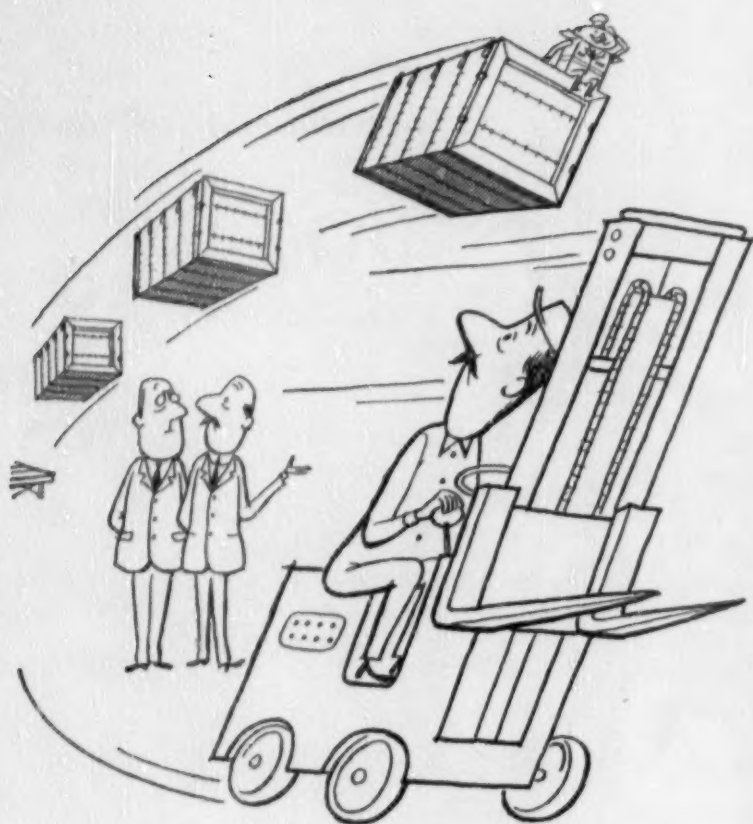
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keep costs proportionate at the same time. He asked Niemeyer, "How much do you think you've got invested down in your neck of the woods?" Niemeyer guessed "around \$300,000." Persons was pleased: "I figure \$289,000. That's pretty close."

At the end of the hour in the front office, Hoover and Niemeyer moved across the hall and sat down with Sherwood Bonney, and for the rest of the week they went, in turn, to each member of the management committee. On the last day, they went back into Persons' office, then went back to their divisions to write their reports.

Several suggestions have already come out of the clinic. One man feels all similar divisions should have on file the formulas and development information used by other divisions so as to eliminate duplication of effort. Another suggested that Persons visit the company's several operations more often.

• **It Works**—At least one result of the clinic became apparent an hour after it started. As he closed his first session with Niemeyer and Hoover, Persons told them to keep one night open so he could take them to dinner and the theater. Hap Hoover flashed right back to Persons: "It better not be The Solid Gold Cadillac—I've already seen that four times with visiting firemen." Persons said nothing, but on Thursday night the three of them went into New York to dinner and the theater. They saw *The Girl in Pink Tights*.

## MANAGEMENT BRIEFS

**Spin-off** of Chance Vought Aircraft, Inc., of Dallas, from its parent, United Aircraft Corp., of East Hartford, Conn., is going through on schedule (BW—Jan. 30 '54, p. 100). This week, UAC directors approved distribution on July 1 of one share of Chance Vought common stock for every three shares of UAC. UAC has held all of Vought's stock since that company went from division to subsidiary status Jan. 1.

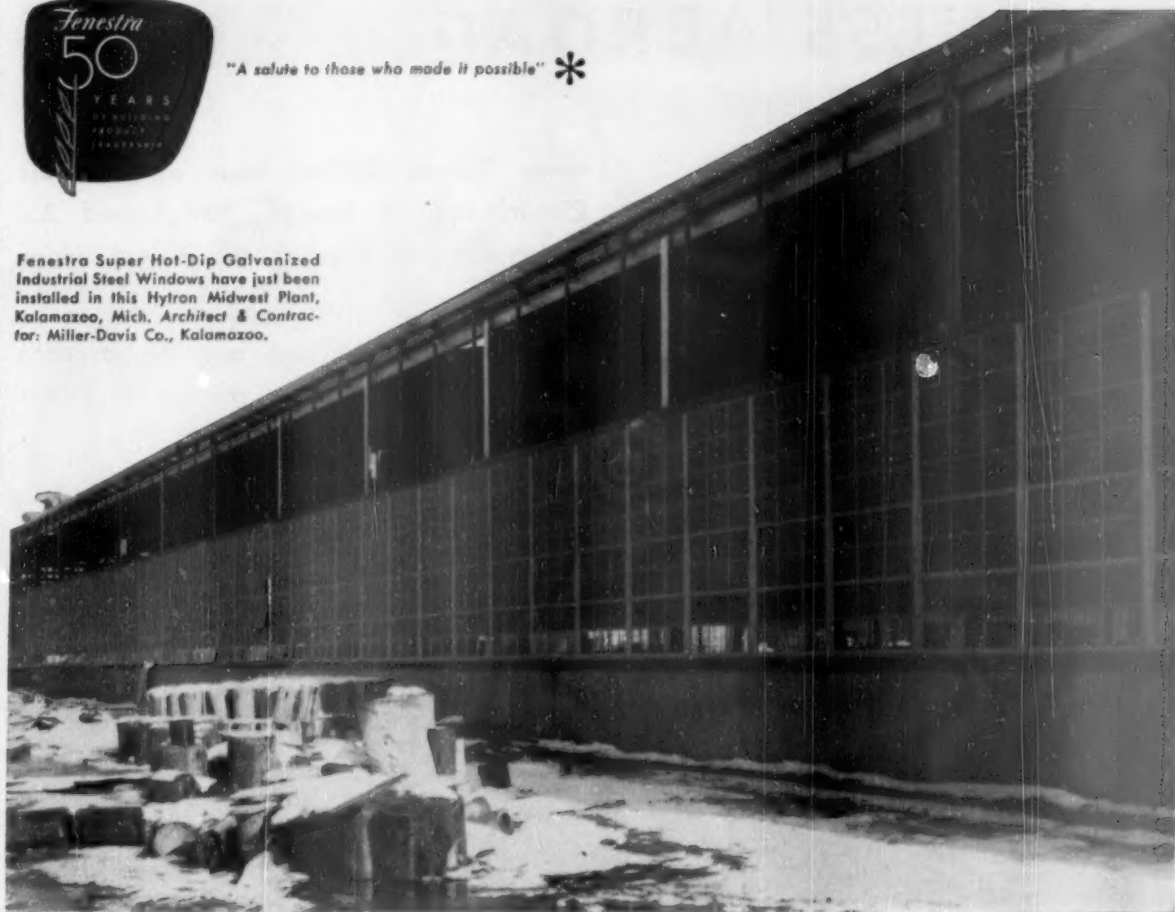
**Du Pont** has established a new centralized sales training service as a part of its employee relations department. Both new and old sales personnel will use the service, which consists of two sections: (1) supervisory and employee training, and (2) business and economic education.

**Obesity Ltd.** is the name of a seven-member executive club in Rochester, N. Y. The exclusive seven meet once a month for a weighing-in ceremony and lunch (in that order). Those over their insurance-company weight pay a fine in accordance with a legal contract they all have signed.



"A salute to those who made it possible" \*

Fenestra Super Hot-Dip Galvanized Industrial Steel Windows have just been installed in this Hytron Midwest Plant, Kalamazoo, Mich. Architect & Contractor: Miller-Davis Co., Kalamazoo.



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**BEND TEST** shows why Fenestra Steel Windows are called Super Hot-Dip Galvanized. When two pieces of galvanized steel are bent, then straightened, some types of galvanizing crack open, leaving the steel vulnerable. The Fenestra piece stays protected.

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# Fenestra

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## BUSINESS ABROAD



← Gunnar Myrdal, head of Economic Commission for Europe, had hoped 25-nation Geneva meeting would get things flowing.

● Trouble was, Russia and its satellites had nothing to offer in exchange for goods they wanted.

● Actually, trade across the Iron Curtain had already perked up a bit. But no big gain is in sight.

## East-West Trade Talks Flop Quietly

Until last week two East-West conferences were going on simultaneously at Geneva's ornate Palais des Nations. The Five Power meeting on Asia will be front-page news as long as it continues. The other parley—a 25-national consultation on East-West trade that began a week before the big conference and ended quietly just 14 days later—went on almost unnoticed in the world's press.

• **Empty Hands**—This lack of publicity was deliberately fostered by Gunnar Myrdal, sponsor of the East-West trade session and executive secretary of the Economic Commission for Europe. Myrdal's policy of hush and the greater headline attraction of the Five-Power meeting weren't the only things that kept the trade talks unnoticed: The meeting itself was something of a flop, for the simple reason that the Communists have very little to offer in exchange for Western goods.

The flow is partly obscured by the fact that 1954 will show a sizable upswing in East-West trade, the first since the postwar peak in 1949. But that rise had been apparent even before the latest ECE meeting. It had got its start earlier, from agreements made last year when ECE held its first serious East-West talks.

At the latest session, the one open secret was the disappointment of the delegates from Western Europe when they found that the Communists would not be able to pay for the goods that

they say they want—goods of all types ranging from raw materials to consumer items.

The Western countries sent an impressive group of experts and offered plenty of goods. The East still looked to them like a natural market. Sure enough, the Eastern delegates were willing to accept goods of all types—but they had no means to pay for them. In fact, some experts believe that existing contracts may be cut back because the Communists won't be able to make deliveries.

The end of the ECE meeting strengthened the impression that postwar economic changes behind the Iron Curtain will prevent the kind of trade that existed before the war—an exchange of Western Europe's manufactured goods for Eastern Europe's food and raw materials. The forced collectivization of agriculture in the East has ended all hopes of big food exports; industrialization has cut down the availability of such items as Polish coal.

• **Clinging to Hope**—Myrdal himself refuses to take this view. He still believes that East-West trade is destined for long-term growth. For evidence, he points to what happened in the second half of 1953, after the first ECE trade talks.

In the first six months of 1953, Western Europe's exports to Iron Curtain countries totaled only \$335-million, imports from the East were \$393-million. In the second half, the exports rose to

\$454-million, the imports to \$525-million.

What's more, the biggest part of the increase came in the fourth quarter, with a further rise expected this year.

Almost any increase would look impressive, of course, because at the extremely low level of East-West trade since 1950. Last year, exports from Eastern to Western Europe were only a quarter of 1938 volume, exports from West to East were about a third the 1938 level. And 1938 was hardly a peak year.

Myrdal thinks that the 1938 level can be surpassed before too long, but many experts disagree—including many delegates to this year's ECE meeting. Their view is that there will be no substantial gain until the East is ready to ship much more goods than it now has available.

• **Good Work**—Whichever view is right, ECE and Myrdal in particular can claim a lot of credit for what increase there has been recently in East-West trade. Russia and its satellites had to take the first step by changing their attitude and deciding to step up trade. But once Moscow made the decision, ECE became the natural medium for getting interested nations together.

The organization was originally set up in 1947 as an agency of the United Nations to provide a forum where European governments could discuss their mutual economic problems and coordinate their policies. At that time, the



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This 60" all-wood pipe now conveys highly corrosive waste liquor from a pulp mill to a disposal area. The pipe line runs above ground, underground and, in one area, 15 feet below a river bed!

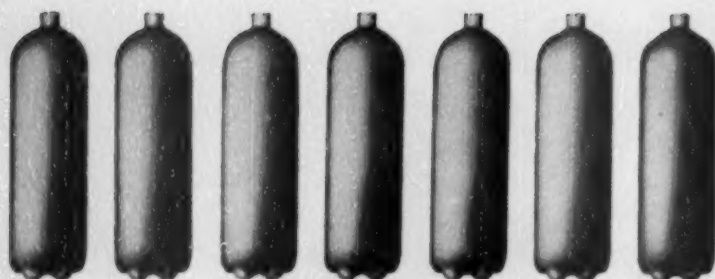
The pipe had to be strong, waterproof, acid-resistant and flexible enough to conform to uneven terrain. Treated wood did the job! The laminated wood hoops, tested to outward pressures of 78,000 lbs., were glued with CASCOPHEN, Borden's waterproof resorcin resin glue.

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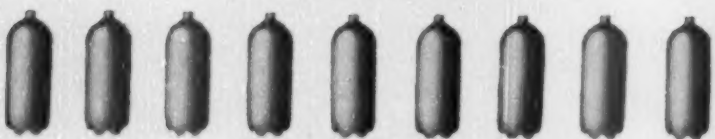
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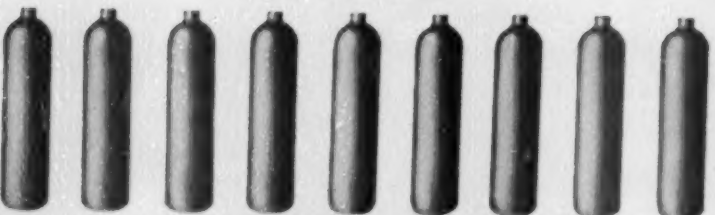
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U.S. was the main sponsor of ECE, using it to channel supplies to crippled European industries. Thus ECE allocated coal throughout Europe, and helped reestablish needed transport facilities.

Soon afterward, the U.S. launched the Marshall Plan and the cold war came out into the open. The U.S. and the Western European governments set up the Organization for European Economic Cooperation; ECE became a victim of the cold war.

As the cold war became colder, ECE all but disappeared. It might have died completely if Myrdal hadn't kept its various committees in operation, providing a flow of economic information on both Western Europe and the Soviet bloc.

• **The Payoff**—Myrdal believes that his efforts paid off last year when Moscow changed its trade tactics. Just before Stalin's death, the U.S.S.R. announced it would send delegates to the ECE timber committee. The satellites followed suit, and Myrdal pressed hard to open trade negotiations.

Last spring, the first trade meeting was held. Myrdal said even he underestimated its importance. Not until later did he begin to believe that Russia had made a definite shift in policy. Now, though, he sees a real opportunity for the West to expand its trade. He argues that when the Communists decide on a policy of more trade, it means a major shift in their thinking, one not likely to be reversed.

All Myrdal's optimism has not supplied an answer to the question of what goods the East is going to ship to the West.

At the moment, Russia does seem to have oil to export. Iceland is now getting all its oil from Russia, which is also dangling oil before other potential customers. Some ECE officials see this as a sign that Russia has a substantial surplus and is not troubled about the possibilities of war. Others feel that it may be a sign that the Communists are desperate for goods and must use precious oil for barter. Either way, Russia's oil exports of 1.6-million tons last year were only a shadow of the prewar 3.6-million tons.

• **Just Bait?**—There was suspicion at Geneva that the Russians were offering oil—and sometimes even steel—as bait, and as evidence they are ready to make prompt payment. Later, the theory goes, Moscow will demand long-term credits.

Taking into account all factors, there seems little chance of more than a slow rise in East-West trade unless the Communists raise the ante considerably.

• **On the Skids**—As for ECE, it may be heading for another decline. Future East-West talks will probably be carried on privately by pairs of countries. Even



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## 3-D CAM CUTTING

• Three dimension is no exclusive development of the motion-picture industry—current ballyhoo to the contrary. In the field of mechanics there are various three-dimensional operations. One of the most interesting is derived from the 3-D Cam.

• You are all familiar with simple, two-dimensional cams, eccentric shaped pieces such as those used to lift the valve stems in your car. They convert a circular motion into a vertical motion, performing a single function.

• In some computing equipment, such as Ford Instrument Company makes, three-dimensional cams are used to give a single answer from two different inputs. These cams are used in elaborate computing devices to give such characteristics as ballistics of a shell, magnetic variation, or to solve some basic mathematical function. Obviously, to make these cams requires extreme accuracy, and a wealth of experience. In this design and manufacturing specialty, Ford Instrument has been a leader for almost four decades.



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the formal session last year led to private agreements not under ECE auspices.

Myrdal is not resigned to any such shrinking role for ECE. He has just

been in Washington trying to increase State Dept. interest in ECE as the main economic organization for all of Europe. But he's unlikely to get more than a polite hearing.

## Germans Push into Chile

**They're moving fast to regain their big prewar role  
... New way to liquefy and transport natural gas may change  
the world picture ... Russia drops Australian wool.**

West Germany's drive to regain its prewar position in Latin America is currently rolling fastest in Chile.

The Germans have chalked up three successes there in the past few weeks:

• Chile's first sugar refinery, built with German aid, went into operation last week.

• The Germans have just signed an agreement to help the Chileans put up a cellulose plant.

• This week Chile took the first step toward returning one of the major German assets seized during the war.

All this puts the Germans well on the way to recovering their former top spot in Chile.

• **Assets Coup**—On the assets, German efforts were sparked by Economics Minister Ludwig Erhard's recent Latin American tour. Erhard's primary aim was to build good will, but he also plumped hard for return of seized assets.

Santiago was in the mood. Despite some political opposition, the government's Development Corp.—Corporación de Fomento de la Producción—voted this week to sell back to the Germans the organization that handled prewar Chilean operations of the Bayer drug combine and Farbwerke Hoechst, A.G., one of the branches of the I. G. Farben chemical empire. The Germans had tried to avoid seizure during the war by selling the organization to a couple of Chilean employees. But the employees were subsequently forced to sell to the Development Corp.

The current value of the German chemical holdings is estimated at a minimum of \$500,000. A mixed commission, representing both Chileans and Germans, will go over the assessment and fix final sales terms.

The Development Corp., which was formed in 1939, has been trying to diversify Chile's economy to get the country away from its present dependence on copper exports. For that purpose, it has been acquiring industrial holdings since its formation. The disposal of its chemical holdings to the Germans will be the first reversal of this trend—and Santiago is certain to exact a stiff price. It's a sure bet that before the corporation returns these assets, it will insist that the Germans put in

more money to give Chile a chemical industry that goes beyond its present embryonic size.

• **Moving In**—That, however, will dovetail nicely with West Germany's efforts to climb back into its prewar niche in Chile. To do it, they've been granting long credit terms, quoting low prices and shipping quality goods. The strategy is paying off in Chilean orders.

Last year German ears pricked up at the news that Chile was making a first try at raising sugar beets—garnering a crop of 80,000 tons. Germans stepped right in to help build the sugar refinery that opened last week, putting up half the \$5.5-million outlay and all of the machinery. The new refinery will produce 20,000 tons a year. Later several others will be built with German aid.

Other German deals are also in the making. The latest involves the cellulose plant mentioned above, with a 75,000-ton output. Cologne firm Otto Wolff will provide \$28-million in credit spread out over seven years; Phrix Werke, A.G., of Hamburg, will supply the knowhow.

• **U.S. Boost**—The feverish German activity in Chile is getting an accidental helping hand from the U.S. Our copper imports have been in the dumps recently, creating a dollar shortage in Chile. As a result, import licenses there are now easier to obtain for Germany than for the U.S., giving the Germans a free boost in their efforts to get back into Chile's economy.

## New Vista for Gas

A new method of liquefying and transporting natural gas is being studied by the Foreign Operations Administration and the World Bank in Washington.

If the new method turns out to be practical, it could change the whole international fuel picture. It would cut the cost of shipping natural gas from the Middle East to Europe to roughly half of what it costs to ship manufactured gas, according to preliminary estimates. That would open a huge market for the 600-million cu. ft. of natural that are now being flared every



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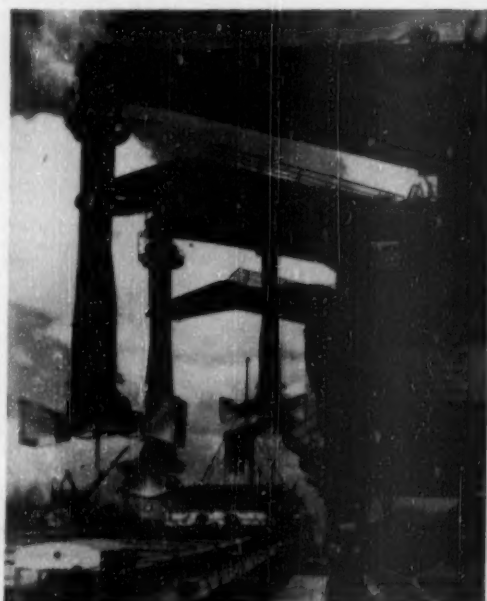
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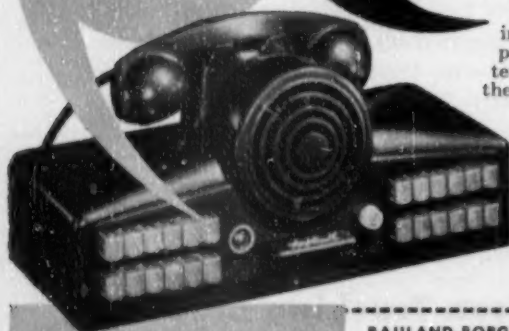
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day in the Middle Eastern oilfields. In the Western Hemisphere, Venezuela—theoretically—could find a market for its natural gas in a string of U.S. East Coast cities from Florida to Maine—wherever the pipelines don't go.

• **Advantages**—The process was developed by W. L. Morrison, a Chicago businessman with oil interests in Louisiana. He is already building eight barges to carry gas from Louisiana gas wells up the Mississippi to Chicago.

The gas will be compressed and cooled to  $-285^{\circ}\text{F}$  at the well head, on a barge equipped as a liquefaction plant. Then it will be transferred to tanks for transportation.

Big advantages of the new method over pipelines are the cost factor and the greater flexibility. Gas can be capped at isolated wells and shipped to places not served by pipelines. Earlier methods made both transportation and storage of natural gas dangerous.

• **Nibbles**—Morrison is trying to persuade the Venezuelans into going into production on a royalty basis, but so far there is no agreement. FOA and the World Bank definitely are interested, but there are no specific projects in the works. Several U.S. companies with overseas operations are interested in the possibilities of supplying Europe with Middle East gas, but so far they're waiting to see how Morrison's domestic operation pans out. Capital investment in liquefaction plants in the Middle East, including special tankers, would add up to several hundred million dollars.

## Wool Reprisals

After stepping up wool purchases in Australia this season, Russia now says it will stop all buying of that country's major export. The announcement came in the wake of Russia's recent break in diplomatic relations with Australia over Canberra's grant of political asylum to a Soviet embassy official and his wife.

The Australians aren't too surprised by the Russian move. It's a well known fact that the Soviets use economic pressure freely to back up their policy moves when they think it will prove effective. Nor are the Australians overly worried by this latest maneuver.

While Soviet wool purchases this season amounted to more than 30-million lb.—a 75% hike over last year—this adds up to only 5% of Australia's total wool exports. And, Australians think, that's about all the Russians had intended to buy this season anyway.

However, Soviet orders had helped take some of the sting out of the big drop in U.S. imports, which last year mounted to 50%. Even though U.S. buying has picked up since, Canberra fears it could take another tumble.



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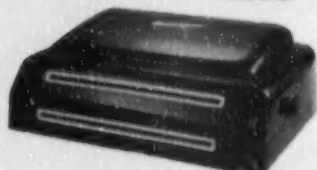
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## BUSINESS ABROAD PATTERN

### What Dienbienphu Means to the U.S.

**T**HE FALL of Dienbienphu last week has thrown a heavy new burden on the U.S. in the long struggle to establish a balance of power between the Communist and non-Communist worlds. Since 1946, France has stemmed the push of communism into Southeast Asia. Until last week, there was a wavering hope that somehow it could continue to hold some line in Indo-China without direct American intervention.

Now that hope is gone, and instead comes a set of grim questions. Should the U.S. intervene directly? With or without allies? With air and naval support? Ground troops? Where can the Communists be held? What will be the new French role?

**O**NE FACT is plain. The U.S. now is the leading non-Communist power in Southeast Asia. Dulles feels committed to stopping the Communists somewhere north of Malaya and east of Thailand and Burma—no matter what decisions are reached at Geneva or on the battlefields of Vietnam. The French can't fight alone any longer, nor could they enforce a peace settlement. Our other allies have neither the money nor the men to help much. So, peace or war, only the U.S. can do the main job of damming the Communist flood—if it is to be dammed—before it drowns all Southeast Asia. The Administration sees no alternative but to take on the job. The loss of the whole area with its rice, tin, rubber markets, and its 200-million people would tip the power balance so heavily against the Free World that many U.S. officials feel it would set off the hydrogen war.

Accepting this new commitment can mean heavy sacrifices in money, men, and guns. Odds are that U.S. ground troops will have to be committed—either to help win the war if it goes on, or to help police armistice lines if fighting stops.

**W**HAT HAPPENS in the next few weeks at Geneva and on the fighting fronts in Vietnam will determine the size and form of the U.S. job in Southeast Asia. There are three possibilities:

(1) At Geneva, the Commu-

nists may stick to peace terms that the French can't accept. But the French wouldn't go on fighting alone. They would demand American air and naval support, at the least. Washington would then insist on training and arming native Vietnamese troops and upon freeing the local governments from French political control. U.S. officials are convinced that the war can be won—if at all—only by enlisting native support.

(2) An acceptable armistice might be negotiated at Geneva that could be guaranteed by the Free World powers with interests in the area. (This is almost out now, since the Communists are winning on the battlefield and probably won't give the Free World a breather.) Here, again, the U.S. would have to guarantee the armistice lines with at least token forces, and back them up with economic aid and political organization.

(3) The French may lose all or most of Indo-China—either through a military collapse or a diplomatic capitulation at Geneva. Washington has decided not to step in militarily to save Vietnam—most important of the three Indo-Chinese states—if that happens. But an attempt would be made to draw a line around the two inland states—Laos and Cambodia. At the very worst, the U.S. would go all out to stop the Communists at the Burmese and Thai borders. Thailand and Burma are last-ditch barriers on the roads to Malaya, Indonesia, India.

**D**ULLES WILL DO his diplomatic best to get united action in Southeast Asia, of course. He feels strongly that unilateral intervention would fan Asian fears of American imperialism, risk smashing the Atlantic Alliance. That's why he has given top priority to building a Southeast Asian NATO before acting, why he even would be willing to lose Vietnam rather than step in, without allies, to save it. But he might wage unilateral action as a last resort to save Laos and Cambodia. For he has made it clear that, alone or not, the U.S. now has primary responsibility for defending the most indefensible area in the world.





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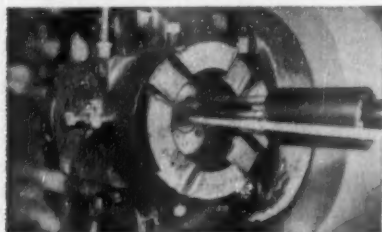
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## BUSINESS ABROAD BRIEFS

**Expansion abroad:** Ford Motor Co. is putting up a new plant in Barcelona, Spain. Planned output: 6,000 tractors and trucks a year. . . . Food Machinery & Chemical Corp., San Jose, Calif., has acquired controlling interest in Morris & Martin Ltd., a Port Elizabeth, South Africa, engineering and manufacturing company. The parent company is mapping plans to put up a new plant for its new subsidiary. . . . Parke, Davis & Co., Detroit drug house, has opened a manufacturing laboratory in Venezuela, its fourth Latin American operation. . . . A plant to produce soluble coffee for export to the U.S. will be built in El Salvador by local interests and Tenco Co., Linden, N. J. Tenco was formed last year by 10 small coffee manufacturers to supply their soluble coffee needs (BW-Mar.21'53, p143).

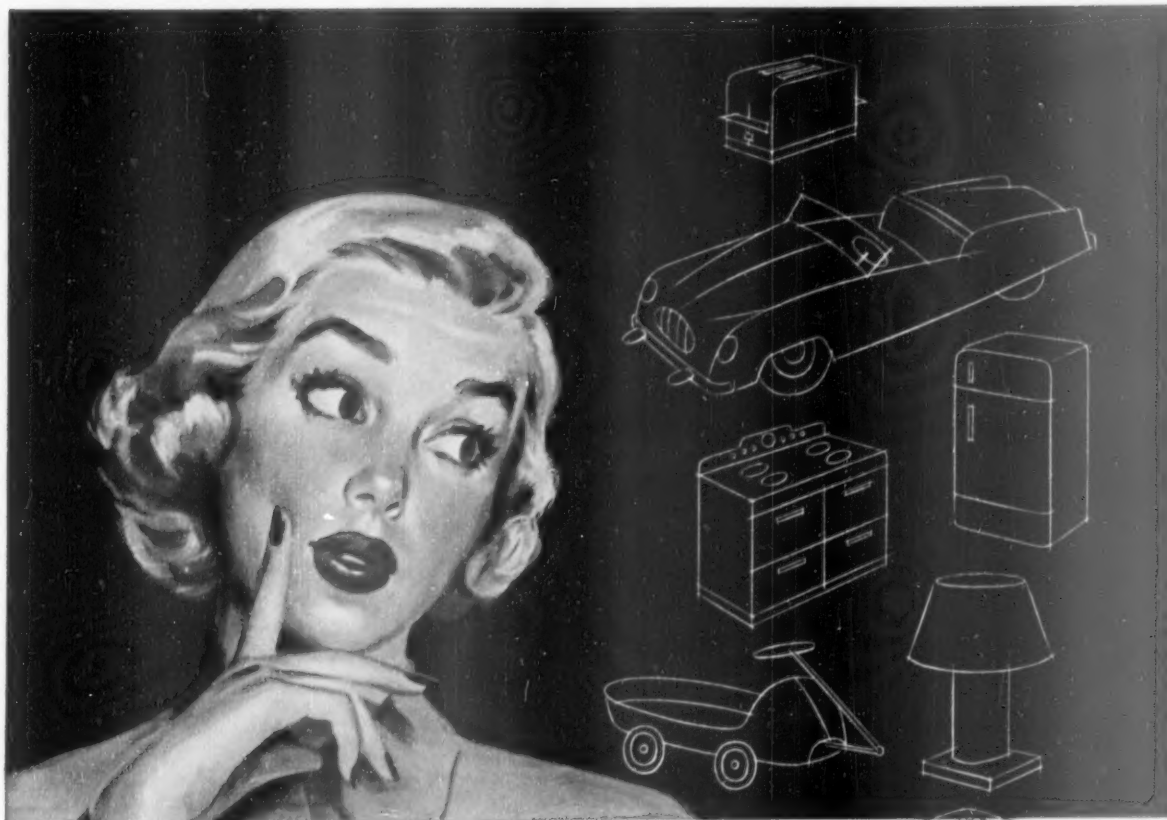
**Direct service between U.S. and the industrial north of Britain** is now provided by British Overseas Airways Corp. Weekly nonstop service between New York and Glasgow was inaugurated this week.

**U.S.-West German link-up:** Atlas Powder Co., Wilmington, Del., and Th. Goldschmidt, A. G. Essen, have formed a new German emulsifier company. The new affiliate will have its headquarters in Essen, start research and marketing operations in July. It's Atlas' first venture in Europe.

**New candidates for the New York Stock Exchange?** Unilever, the giant British-Dutch combine whose U.S. subsidiary is Lever Bros., and Royal Dutch Petroleum Co. are working out arrangements to qualify for listing on the Big Board. They're the latest foreign companies to seek listing in New York. Earlier this year a Dutch rayon combine received approval for trading on the American Stock Exchange (BW-Jan.30'54,p123).

**U.S. interests—New York banking and Pittsburgh steel—have acquired control of Fenimore Iron Mines, Ltd., Toronto.** Fenimore has been exploring the newly uncovered rich iron ore deposit around northern Canada's Ungava Bay (BW-Jan.16'54,p60).

**First oil in Cuba** was struck last week about 230 miles from Havana. A new well was reported producing 250 bbl. daily with more expected from other drilling now going on in the vicinity. Any sizable production would help Cuba's economy, which now imports almost all of its oil needs.

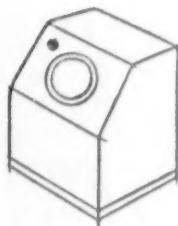
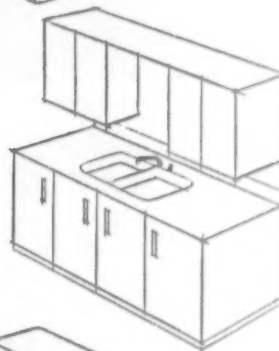
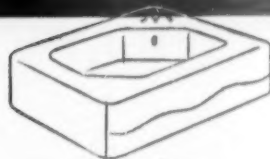


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# INTERNATIONAL OUTLOOK

**BUSINESS WEEK**  
**MAY 15, 1954**

**A BUSINESS WEEK**

**SERVICE**

Chances of negotiating a peace settlement for Indo-China at Geneva are just about gone.

The Communists' terms amount to unconditional surrender for the French. And Ho-Chi-Minh isn't likely to soften the terms while he's winning on the battlefield—driving deeper into French-held territory.

French Foreign Minister Bidault will reject the Red offer. Geneva will see some jockeying for propaganda advantages. But the conference will probably break up in the next couple of weeks—when the Reds won't give.

Indo-China's fate will be decided in Paris. At midweek it was a toss-up as to whether the French government would back Bidault—and bring allied help into the war—or vote in a new cabinet that could accept the Reds' terms on capitulation. By supporting Bidault, the French would keep the war going. By voting him out, the Assembly would force a general election and postpone a decision—for a couple of months.

For Washington, this means hard decisions fast—whatever happens (page 25). If the French keep on fighting, they'll want direct military assistance. They feel they can't go it alone much longer. The loss of Dienbienphu ended France's colonial war. Fighting from now on will have to be on an international basis.

If France gives in, the U. S. will be up against the problem of establishing a new defense line in Southeast Asia (page 150). The U. S. will try to hold Laos and Cambodia.

Military experts figure Vietnam will go by the boards if the French quit. It's the most important of the three Indo-China states. But Laos and Cambodia would be easier to defend. The Communists would have to cross recognized frontiers to invade them, start a new hot war. And they have good natural defenses.

Secretary Dulles will move fast to forge a new defensive alliance for Southeast Asia. Last thing he wants is to have the U. S. move in alone. He's starting talks this week among military leaders of the potential allies. Political dickerings will follow.

Britain is ready now to follow the U. S.'s lead on Southeast Asia. British have held back, fearing the Chinese would come in if France's allies got into the war. They haven't thought Vietnam as important as Americans rated it, they feared a rift with India. They kept on hoping that a deal could be worked at Geneva to partition Vietnam.

Ho's tough terms will change Britain's mind. The Anglo-American alliance would be jeopardized if London let Washington go it alone.

Australia and New Zealand want fast action. They want to get the Southeast Asia alliance set up. They've been prodding London. Joining with them will be Thailand, Ceylon, the Philippines. Even Burma might come in.

**The big question is: How much time?**

Onrush of the Communists could upset the free world's planning. U. S. military men fear that the Vietminh armies that crushed Dienbienphu can regroup, push against Hanoi and the Red River Delta—within three weeks. Hanoi is the hub of French defenses in northern Indo-China.

# INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK  
MAY 15, 1954

One other possibility: Reds could knife into Laos and Cambodia. Either way the U. S. might have to rush in troops—without waiting for allies.

French military leaders are more optimistic. Despite intelligence reports of mounting panic among civilians in Hanoi, and sharper guerrilla action in the Delta, they think the Delta area can hold until the end of the monsoon season in September. But they've been too optimistic all along.

—●—  
All this isn't scaring the Communists at Geneva. The free world's slow moves toward united action won't bring any real concessions from Soviet Foreign Minister Molotov and Red China's Chou En-lai.

They're calling for unconditional surrender by France:

- Withdrawal of French troops, an end to U. S. assistance.
- Elections, Communist-style and with no foreign interference, that would put the local Communist parties in all three Indo-Chinese states into power.

The Communists are paying for something much bigger than Indo-China. Their peace terms aren't meant for the negotiators at Geneva. They're aimed at the big bloc of French voters who are neutralist.

Molotov is hoping to get a neutralist government in France—that's the real meaning of his offer. With the right government, he could scuttle Western hopes for a European army, maybe even undermine the North Atlantic Treaty Organization.

—●—  
Japanese Premier Yoshida faces a political crisis—perhaps soon. His austerity program is beginning to hurt—business bankruptcies are up sharply. And Japan's foreign trade deficit is still big. Businessmen and neutralists who want to trade with Red China blame Japan's economic troubles on Washington.

Pressure on Yoshida will increase when negotiations begin over Japan's \$2-billion debt to the U. S. Most Japanese have assumed that the U. S. assistance given Japan during the postwar occupation was for free.

The bargaining will be hard. Yoshida will try to get off by paying only one-third of the amount, stretch that over a long time. In addition, he'll ask that any dollars repaid by Japan be spent there again—for goods under the Mutual Security Program's offshore procurement plan.

—●—  
In secret, negotiators are working toward a Trieste settlement. British, American, and Yugoslav talks are making solid progress. A formula for dividing up Trieste's disputed territory is in sight. It would be sugar coated with U. S. aid for both Yugoslavia and Italy.

But don't look for a quick agreement. The U. S. has another iron in the negotiating fire—it hopes to bring Yugoslavia into NATO. The Italians will have to be coaxed into consenting to this.

—●—  
The White House will be working out its strategy on foreign trade legislation in the next ten days. State Dept. and Clarence Randall, Eisenhower's policy adviser, are urging the President to fight for a three-year extension of the Reciprocal Trade Act. Congressional leaders are urging the President to settle for a one-year extension.



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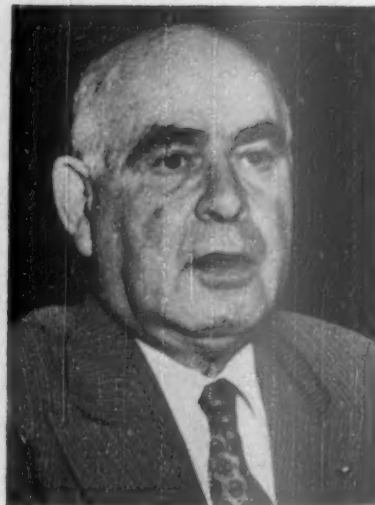
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## LABOR



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### WHEN THE CHANGE CAME UP, THEY Killed T-H with Kindness

Republican congressional leaders this week conceded defeat of President Eisenhower's pledge to revise the Taft-Hartley Act.

It was a cloud over the Administration program, but some supporters could see a silver lining. Despite their chagrin, they see advantage in the solid party stand by 48 Democratic senators that doomed the bill by recommitment, even before any action was taken on the President's proposed amendments.

White House political experts state it this way: The President can exploit the subject when he appeals for GOP support in the fall elections because it was the Democrats who killed revision.

This rosy view—a not uncommon political pollyanna theory—fails to note that the White House could not get congressional support for a "moderate" plan that would change the controversial law in hopes of satisfying partisans on both sides.

• **Built-in Failure**—The Administration was defeated because its program contained the seeds of its own destruction. Neither unions nor management liked the White House T-H version; it did not go far enough to satisfy either side.

Representatives of both groups crowded the halls of Congress all week, buttonholing legislators with warnings of retaliation at the polls if the Administration won out. That's why the Eisenhower bill got no further than the Senate, where the Labor Committee reported it out almost intact. It also

explains why the final T-H test hung on other issues.

• **Strategy Backfired**—Normally, a vote to recommit a bill (in effect, to kill it) comes just before a final vote on the issues. Last week, though, the Senate tried recommitment first—if the move failed, other amendments outside the Administration program could be brought up with a better chance of passage, senators thought.

The only apparent chance of getting a new law was to make the Taft-Hartley bill more palatable to management, since liberals are outnumbered in the Senate by conservatives who favor tighter restrictions on labor than the President proposed. Thus, conservative Republicans were willing to use the Administration package as a platform while they offered a key amendment designed to attract antilabor votes from the Democratic side of the aisle. It almost worked. This is how it misfired:

• Sen. Barry M. Goldwater (above, left), Arizona Republican, proposed an amendment that would give the states authority to handle all labor disputes now under T-H's federal jurisdiction. The measure was designed to cancel out Taft-Hartley in favor of state labor laws, which could be no tougher than the federal act but which could be interpreted more strictly to clamp down on labor's secondary boycott and strike activities. This had a big appeal for Southern Democrats whose support was needed to get it through.

• **Liberal Democrats**, who were backing labor's efforts to kill all T-H legislation, countered with an antidiscrimination amendment offered by Sen. Herbert H. Lehman (left) of New York State and supported by his Republican colleague from New York, Sen. Irving Ives. This provision would outlaw racial or religious discrimination in hiring of union members—a proposal heartily opposed by Southern Democrats.

• **Getting ready for debate**, all senators agreed to limit arguments on each amendment to 90 min. This rule was aimed at preventing Southern senators from conducting a filibuster against the antidiscrimination proposition. States' rights people in both parties had an informal promise that the FEPC amendment would be tabled in debate.

• **Inner Workings**—After these formalities, senators began to have misgivings. The Democrats' Southern contingent questioned whether Republicans, who had supported FEPC in the past, could vote against the measure when it came time to go on record. There were doubts, too, that the Goldwater and other promanagement amendments could win approval at the White House, even if they got through the Senate and the House. Labor Secretary James P. Mitchell was set to advise the President against accepting the states' rights proposition.

These ponderings came at a strategic time for the Democrats. It was alumni week in Washington, when the "outs" returned to town for the annual Jackson-Jefferson dinner, and party solidarity was the theme. What Senate minority leader Lyndon Johnson of Texas had been preaching for weeks—that the Democrats should stick together whenever they can—became a natural in this situation.

After a private huddle, the Southerners shifted their tactics and decided to vote the party line with liberal Northerners—an unusual but practical alliance. They were voting the same way for diametrically opposite reasons, but the result was the same: to kill Taft-Hartley revision.

• **Why It Worked**—The move worked because, on a straight party-line vote, the Democrats have one more Senate member than the Republicans. But the vote of 50 to 42 to recommit the bill was a still wider margin.

Joining the Democrats to make up the 50 votes were independent Sen. Wayne Morse of Oregon, a staunch labor supporter, and three Republicans. One of the Republican votes was no surprise: North Dakota's William Langer votes with the Democrats al-

most as often as not. But Sen. Milton R. Young, also of North Dakota, and Sen. George W. Malone of Nevada unexpectedly voted the same way.

Young explained that his vote was a protest against failure of the Senate Labor Committee to consider amendments other than those offered by the President. This was the same reason offered publicly by the Democrats for refusing to consider a new bill. But, privately, Young's vote was more often ascribed to his feud with the White House over its farm program.

Malone, paradoxically, has voted as a conservative on nearly all issues except Taft-Hartley. He voted against the original bill in 1947, and he voted to uphold Truman's veto, on the theory that the federal government should not legislate in labor matters. His T-H stand has won Malone at least tacit support from the AFL in his home state.

• **Dim Future**—What happens to Taft-Hartley now? What a soul is recommitment it can still be brought out later in different form. But this was virtually ruled out when Eisenhower and congressional leaders decided to lay revision efforts aside for the time being.

## USW's Tune Isn't New— But Its Music Is Softer

The notable thing about last week's conference of the United Steelworkers (CIO) wage-policy committee wasn't so much the demands it came up with as the moderate tone with which it proclaimed them.

USW policy makers met in Pittsburgh to frame formal demands on the basic steel industry. After the two-day session, David J. McDonald, president of the 14-million-member union, announced these aims for coming negotiations: higher pay, "improved" pension and insurance benefits, a modified annual-wage guarantee, and generally "better" contract clauses covering such things as seniority, vacations, holidays, hours of work.

None of these demands surprised anybody. All had been anticipated (BW—May 1 '54, p134). All were cautiously vague, allowing plenty of room for bargaining beginning in Pittsburgh May 18.

The one thing that did attract attention was USW's mildness. It dropped the usual reference to "substantial" in its wage demand, and McDonald cautioned against considering June 30—expiration date of steel contracts—as "a strike deadline."



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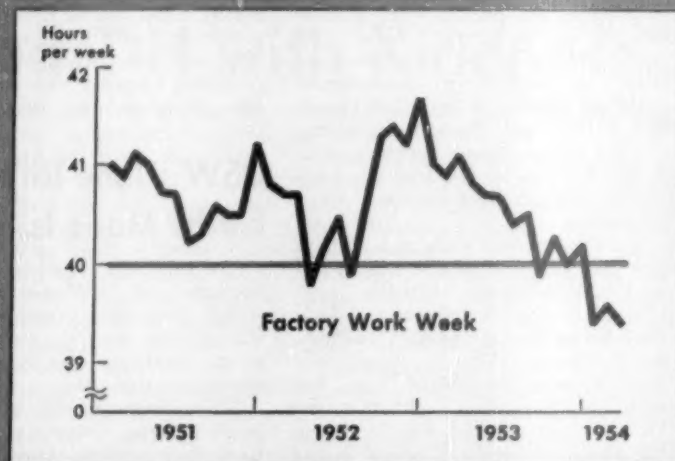
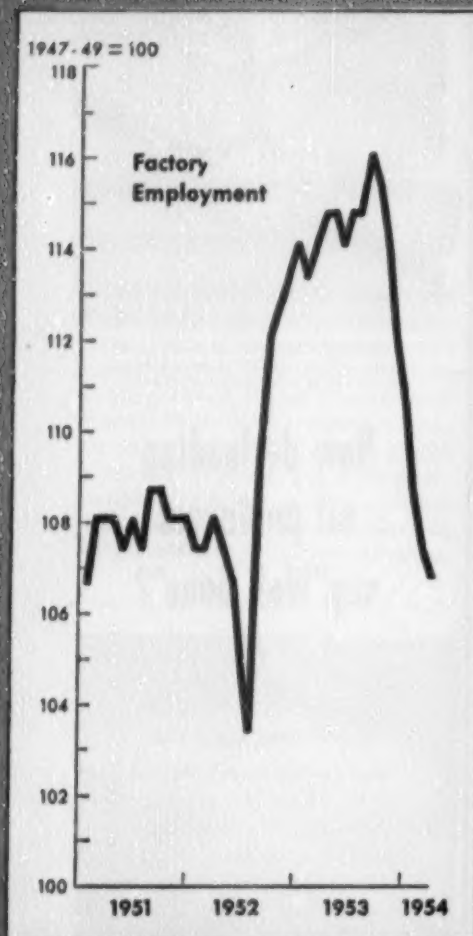


# The Labor Market: Fewer Jobs I

● **Factory employment is down 1.4 million**

● **Layoffs still top hirings**

● **Other people work short weeks**



Source: U.S. Bureau of Labor Statistics.

## The Figures They'll Be Bargaining

These labor market figures for the first quarter of 1954—the latest full set of statistics—will have a sharp impact on labor's political and collective-bargaining activities in the months ahead. To the unions, the important thing is not so much the figures themselves as the general downtrend they signal.

Government employment figures were slipping fast at the end of 1953 (BW—Feb. 20 '54, p. 158). During the first three months of this year:

**Employment** dropped still further—but the rate of fall was less precipitous. In March, federal figures on factory

employment settled down to 15.9-million, the lowest level since July 1952, and 600,000 less than were employed at the end of 1953. The drop continued in April despite a rise in total employment (page 30).

**Separations**—largely plant layoffs—still outnumbered new hirings. But the separation rate of 3.8 workers per 1,000 employed in March was below the 4.0 per 1,000 at the end of 1953, and new hirings at the rate of 2.8 per 1,000 topped the December rate of 2.1 per 1,000.

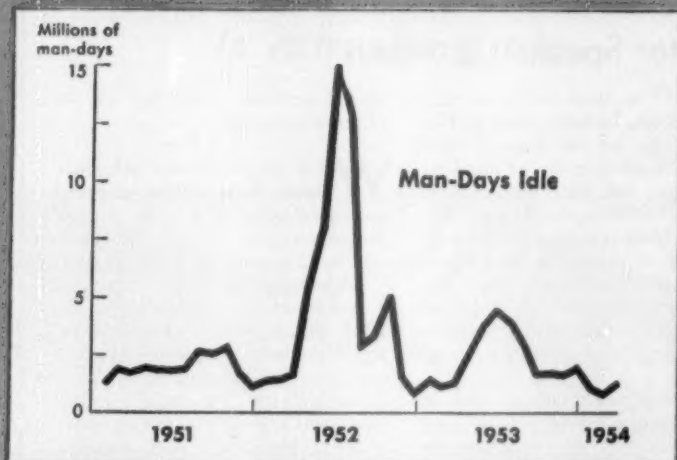
**Hours of work** showed a further

drop, from an average of 40.2 hours a week worked in all manufacturing industries in December 1953, to 39.4 hours in March—the lowest figure since November 1949.

• **Labor Voices**—To unions, these are the most important figures in labor market reports for the first quarter. Three leading CIO unions—the Textile Workers Union of America, United Packinghouse Workers, and Amalgamated Clothing Workers of America—stressed them at conventions during the past two weeks. They demanded "action now" by the government to end

# he Worry

- But there were no big walkouts to inflate man-day losses and...
- New strikes are seasonably low



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## gOver

the indicated "spread of unemployment, loss of overtime pay, and reduction in the work week." CIO similarly cited the continued downtrend in the first quarter at its Conference on Full Employment in Washington this week.

TWUA and UPW conventions urged a 35-hour week at present weekly pay to relieve what they termed the growing "problems of technological unemployment." Along with ACWA, they supported CIO's broad "antirecession" program: tax cuts for workers; a \$1.25 minimum hourly wage; expanded social security and unemployment compensa-

tion; heavier federal spending; and credit and currency adjustments.

It is hardly likely that labor strategists expect that their rising protests against unemployment—or their suggestions on what can be done about it—will change present Administration policies to any great extent. The Labor Dept., for instance, last week reported the first drop in six months in the unemployed—to 3,465,000 in April, a 260,000 drop.

The big labor concentration on unemployment and softened business conditions looks more like a political buildup for congressional campaigns later this year.

• **Quiet**—Meanwhile, labor market figures on employment are being reflected at bargaining tables. Negotiations are

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generally more peaceful than in recent years. There were fewer strikes in the first three months of 1954 than in the first quarter of any of the last five years.

Average hourly earnings in manufacturing industries remained unchanged

from December 1953, at \$1.79-4¢ an hour more than in March 1953. The government's monthly cost-of-living index eased down from 114.9% of 1947-49 costs at the end of 1953 to 114.8% in March.

## THE LABOR ANGLE

### Slichter Speaks Up Again

**S**UMNER H. SLICHTER, who occupies the Lamont chair at Harvard, is one of the nation's most perceptive analysts of the cross-currents that influence industrial relations. He brings to his consideration of labor problems a rare combination of scholarly detachment and a first-hand knowledge that comes, largely, from the confidence that policy makers in both unions and management have in Professor Slichter.

Over the years he has used his franchise of authority with more outspokenness on controversial questions than almost anyone else with whom he may be compared.

With characteristic candor and willingness to forecast, Slichter recently formulated what he considered to be some of the important unsettled issues in this field. And he ventured to predict their outcome. Here are Slichter's questions and—paraphrased for brevity—his answers:

**W**ILL collective bargaining be particularly hard on small and medium-sized companies that cannot use industrial research to keep down labor costs?

Yes, but their problems may not be too serious. Many of them are not in direct competition with large companies, and the unions have shown some willingness to make distinctions in their economic demands on an ability-to-pay basis. However, small companies need to turn more to research.

**W**ILL trade unions seriously interfere with the conduct of plant operations by encroaching unduly upon managerial discretion?

The answer depends upon how fairly management's discretion is exercised and how determined management is to retain it. The danger of encroachment comes, first, from the arbitrary use of authority giving rise to demands it be shared, and second, from a short-run concept of bargaining in which man-

agerial authority is traded off for other concessions.

**W**ILL trade unions introduce some form of the so-called annual wage over a large part of industry and, if so, will the effects on the economy be good or bad?

Unless unemployment insurance is substantially liberalized in the near future, union demands for supplementary, employer-financed systems will be pressed hard. While plans advanced by the CIO steel and auto unions are not so desirable as liberalized state benefits, they would be good for the economy—stabilizing and cushioning worker-income dips.

**W**ILL the upward pressure of trade unions on wages bring about a long-run increase in labor costs and thus a long-run rise in the price level?

In the period of strong prosperity ahead, the bargaining position of the unions will be strong. Employers will be reluctant to take long strikes in order to hold labor costs down. They will do it only if they feel an effective public demand to hold prices stable. This is not likely to develop if the annual rise in the price level is limited to 1% or 2%.

The community will have to make some adjustments to the slowly rising trend of prices. One important adjustment will be the modification of pension schemes so that pensions are automatically adjusted for rises in prices. Modifications of pension plans to preserve the purchasing power of pensions are already beginning to be made.

The more detailed and extended paper from which these observations are abstracted is entitled *Industrial Relations in the United States*, and is available on request from Professor Slichter at Harvard University. It will draw sharp dissent from some sections of the business community. But it will make provocative reading.



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## Curbing Leftists

**New NLRB move means  
trouble for Red-led unions by  
making it easier for members  
to get out from under.**

The National Labor Relations Board last week came up with a new method for pulling the rug out from under Communist-dominated unions. If it works, some dozen suspected unions may be in for big trouble.

During the past half year, leftist unions have twice escaped NLRB by going to court to block crackdown steps by the board (BW-Apr.24'54, p154). NLRB has now devised a new strategy to counter this move by helping union members get away from left-wing leadership.

• **Two Cases**—The new strategy was worked out by the board in two cases, one involving the Fur & Leather Workers, the other the United Electrical Workers. These were two of the unions expelled by CIO in 1949 and 1950 on charges of following the Communist party line.

The new policy applies whenever a local disaffiliates from an international after the parent body's expulsion from its labor federation, and when the expulsion is cited as the reason. When this happens, the board will order "an immediate election notwithstanding the existence of a contract." It will do this, it announced, to clear up confusion in the relationship between employer and employees.

NLRB ordinarily refuses to order elections except at the expiration of a contract or, if the contract is a long one, at certain periods during its life. The board has made some exceptions in the past—notably by allowing elections when a "schism" exists in the contracting union and there is doubt whether it still represents the majority of employees. The new policy is an extension of this "schism" doctrine.

In the cases last week, locals of two leftwing unions followed the steps specified under the "schism" doctrine by (1) calling formal disaffiliation meetings; (2) winning decisive votes to leave the parent union; and (3) demonstrating conclusively that they intended to operate in the future as new unions or as parts of other existing unions. Under the circumstances, it appears, the board could have set elections without any policy change.

• **More Leeway**—The board, however, made it plain that it was setting a new line, by extending the "schism" doctrine to cover, specifically, cases involving international unions expelled from labor federations. It granted elections

to Fur & Leather Workers and United Electrical Workers secessionists under this revised policy.

It did so, apparently, in order to set a precedent for other cases in which the required "schism" tests might not be as clearly met under the old rules.

This could give a big boost to the rapidly moving campaign by the International Union of Electrical Workers (CIO) and other rightwing groups against slipping leftist organizations (BW-Mar.20'54,p57). Moreover, by not limiting the new policy to locals of unions expelled for Communist reasons, the board opens the way for locals of the old International Longshoremen's Assn.—expelled from AFL on racketeering charges—to bolt and petition for quick elections.



ELMER THE ELEPHANT, on TV in Chicago, poses a problem for NLRB . . .

## Which Union Gets the Tusk?

Elmer the Elephant (picture)—a cloth elephant head and trunk featured on a children's television program over WNBQ, Chicago—is the central figure in a National Labor Relations Board inquiry. The issue: Is Elmer a stage prop—or an actor?

Elmer answers questions by rolling his big eyes. He flaps his ears, and picks up and rings a bell with his trunk. It's easy, because of the man inside the head, with a long right arm down the trunk.

At first, Kenneth Herrmann, member of the Theatrical Stage Employees (AFL), was Elmer's inside man—for which he got an extra \$23.75 a week for five half-hour shows. Herrmann's union claimed jurisdiction because, it said, Elmer is a stage prop—along with



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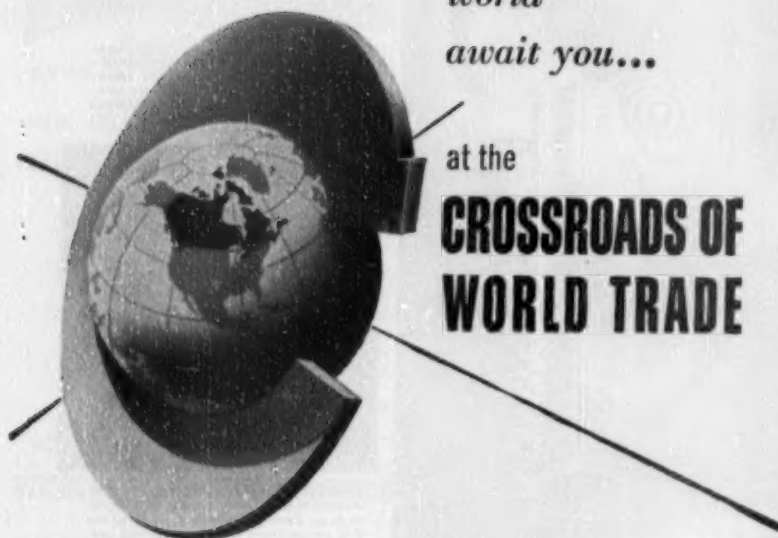
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the Dutch barn door over which he looks.

The American Federation of Television & Radio Artists (AFL) disagreed, and got Herrmann replaced with a "performer" carrying its union card. Herrmann's union protested to NLRB. A board trial examiner at first upheld WNBQ: the station hadn't been unfair to Herrmann, he ruled, because Elmer is a performer in AFTRA jurisdiction. Then the trial examiner took another look at the "mechanical prop" argument last week, and announced he would reconsider the case.

## LABOR BRIEFS

**Resignation** of Charles J. MacGowan, 67, as president of the Boilermakers, Iron Ship Builders, Blacksmiths & Forgers (AFL) was announced by the union last week. MacGowan, who had served since 1944, will keep his job as eighth vice-president of AFL. William A. Calvin, 56, MacGowan's assistant and former secretary-treasurer of AFL's Metal Trades Dept., succeeded him.

A jurisdictional pact was signed last week by the International Assn. of Machinists (AFL) and United Assn. of Plumbers & Steamfitters (AFL), the third of its kind negotiated by IAM within AFL in the past year (BW-Jan. 2 '54, p. 66). As the others, the new one defines jobs to be done by members of each union and sets up an umpire system for settling any dispute.

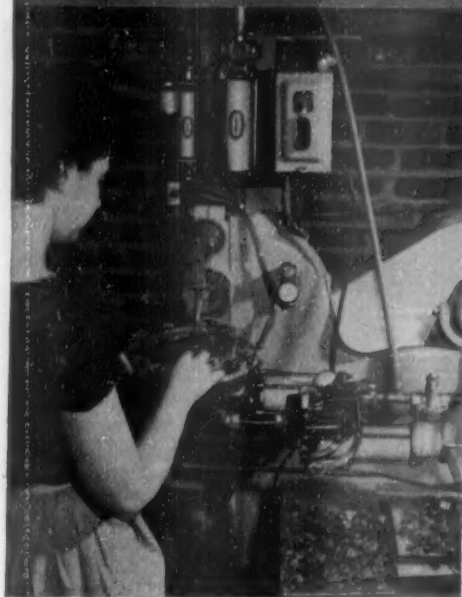
A 5¢ raise averted a threatened strike of 7,000 members of the Molders & Foundry Workers (AFL) at 62 Chicago foundries last week. . . . New contracts between Consolidated Vultee Aircraft Corp.'s Fort Worth division and IAM and the Office Workers International Union (AFL) raise pay 5¢ and give insurance, vacation, sick leave, and other concessions. . . . The U.S. Potters Assn. and Brotherhood of Operative Potters (AFL) renewed, with only minor changes, agreements covering 18,000 employees of 18 companies; the employers had asked for a 5% wage cut.

**The Pictures**—Fabian Bachrach—188 (rt.); Bob Baily—188 (lt.); Black Star-Maurice Miller—92; Blue Streak—164; Burroughs Corp.—75; Henry G. Compton—46, 47, 78, 79, 80, 81, 122, 123; Ford Motor Co.—27; Joern Gerdtz—100, 101; I.N.P.—142, 158 (rt.); Archie Lieberman—114 (rt.); Dick McConaughy—182, 183; U.P.—158 (lt.); George Woodruff—Cover, 114 (lt.), 115.

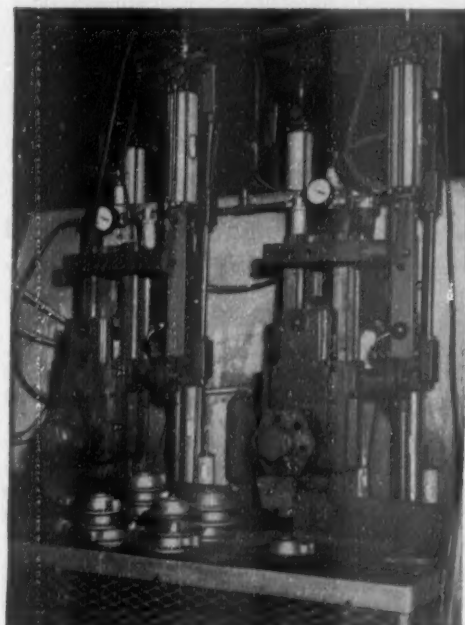
## WITH THIS UNIQUE AIR MOTOR



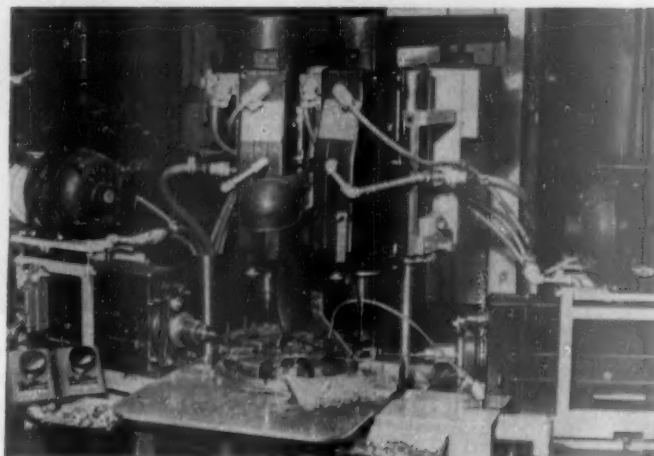
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# THE MARKETS

## The Stock Market Rise:

Sept. 4, 1953=100



## Two Bulls That Beat As One

London's stock market has been staging a rise parallel to the one in New York. And traders in the City say it may last longer. Boom in business helps it.

The bulls are on top in the London stock market as well as on this side of the ocean.

There was some price softness both on New York's Big Board and in London's City this week, but as of last Friday the indexes (chart above) had reached highs, climaxing a run-up since September.

In New York, Standard & Poor's index of 50 industrials stood at 27.6% above the September low.

In London, the Financial Times index of ordinary shares had risen 18.6% since just after Labor Day, when 1953 lows were recorded on both sides of the Atlantic. Those lows had been reached after a nine-month decline, which in the U. S. started from the Eisenhower election highs.

• **Comparisons**—S&P's industrial index is closely comparable to the "ordinary shares" index of the financial Times. Ordinary shares are like our common

stocks, and their index is like our industrials because, in Britain, utilities and rails have been nationalized and are off the market.

Despite this resemblance, and the fact that both the New York and London markets react to certain common influences such as the developments in Indo-China, the two markets each have their own special stimuluses as well.

Thus, the rise of the New York industrial index has been speeded by institutional buying of such favorite shares as electrical equipments, oils, and chemicals, and a few other indexed stocks. That's why the present market is usually labeled a blue-chip affair. For the great bulk of shares listed on the Big Board, there has been little gain since the end of 1952 (BW—May 1 '54, p. 132).

• **Factors in Britain**—Advances in the London prices, on the other hand, have been more general, starting at midyear at the end of a slump in textiles. The



special factors influencing the rise included:

- Industrial production, and exports, hit record highs.
- Corporation profits rose steeply in 1953.

- Dividend rates were boosted widely, as government restraints were eased and fears of inflation subsided.

- Stock bonuses have adjusted the ratio of shares to real capital in use.

By London standards, industrial yields are still high at present rates. The 30 stocks in the Financial Times index yield an average of just above 5%.

Traders in the City say the atmosphere is favorable for continued bullishness. A vital element is the fact that the U. S. business dip has been so much shallower than had been feared.

- **Factors in U.S.**—In New York, the atmosphere is rather different. Chart readers say the bull market is being reined in by the failure of the rails to keep pace with utilities and industrials. They add that there can be no genuine bull market unless the upward trend spreads from the blue chips to a much wider range of issues.

Aspiring bulls are also alarmed by the air holes that keep appearing in the market. In the past few days several favorites have moved sharply downward. Among the drops from 1954 peaks are:

Rohm & Haas at \$212 is down \$16.  
Douglas Aircraft at \$122 is down \$11.50.

Coca-Cola at \$118.50 is down \$7.25.  
General Electric at \$118.25 is off \$6.  
Corning Glass at \$101.50 is off \$7.  
Boeing Airplane at \$79.50 is off \$6.25.

Panhandle Eastern Pipe Line at \$73.50 is off \$11.25.

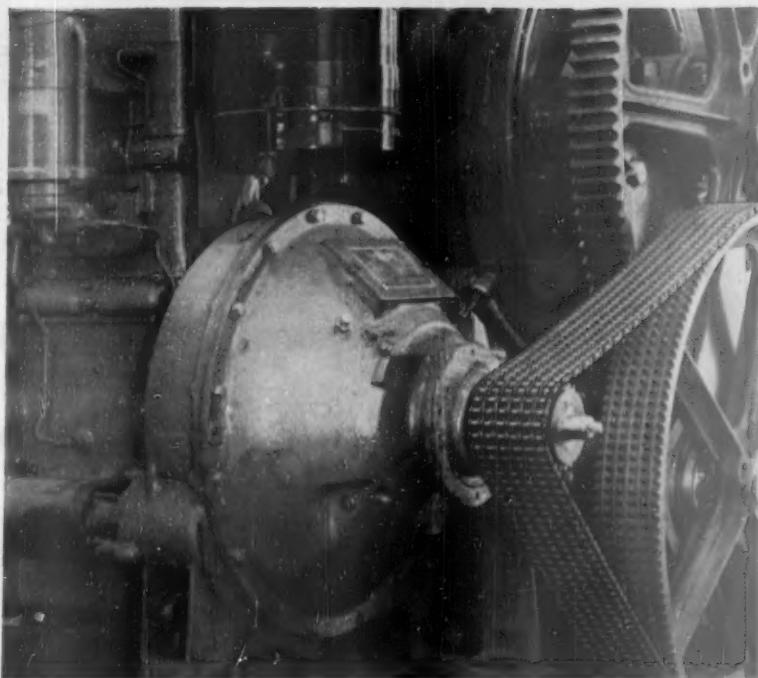
Container Corp. at \$57.12 is off \$6.62.

Combustion Engineering at \$51 is off \$5.25.

Central of Georgia Ry. at \$25.75 is off \$6.87.

- **Strong Hands**—Some traders are wondering whether any drop in the New York market might be largely confined to the blue chips, since it is they that have made the bull movement. Against that possibility is the fact that the blue chips have mostly been going into the strong hands of the institutional buyers—such as the mutual and pension funds—which pick shares with little concern for their ephemeral ups and down.

Another indicator is that most individual investors are buying in their own names rather than in a broker's name. Presumably, these buyers are more interested in income and growth than they are in a quick, speculative turnover.



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## LOCAL BUSINESS

### Sidelining a Sideline

**LITTLE ROCK**—For years, many local electric and gas utilities all over the country retailed appliances as a sideline, as load-builders. This practice has been gradually dying out, but some utilities still continue it. Last week, for what is believed to be the first time, the practice was challenged on legal grounds.

The Arkansas-Louisiana Gas Co. is the utility involved. The Refrigeration & Air Conditioning Div. of the Associated Mechanical Contractors of Arkansas asked the state Public Service Commission to forbid ALG to sell and install appliances on the ground that it was using its guaranteed profits as a "monopoly" to subsidize "destructive competition with private enterprise."

The complaint asserts that the company deals "in the retail sale and installation of . . . air conditioning . . . equipment" and thus "bids and contracts in direct competition with private businesses" in the same field. It goes on to allege that the company lost \$70,000 a year in 1952 and 1953 on its nonutility operations, but that it subsidized these losses from its utility profits, which are "assured" because it is "a protected monopoly."

While only refrigeration and air conditioning equipment were listed specifically in the complaint, the petition asks the commission to stop all of the company's nonutility operations. The company has not yet replied.

### Paved with Intentions

**CLEVELAND**—The Detroit-Superior Bridge (the names refer to avenues) is one of the main traffic arteries connecting downtown with the West Side residential areas. It's also one of the city's main traffic bottlenecks in rush hours; at 5:30, almost any night, traffic waiting to get onto the bridge is backed up all the way into Public Square.

The bridge is a two-level structure. The top level carries four lanes of traffic, two in each direction. The bottom level is not paved; it has four street-car tracks laid directly on the ironwork. But Cleveland has been gradually getting rid of its streetcars for years, and this past February buried the last line—the Madison Avenue car, which ran over the bridge and on out to suburban Lakewood.

• **Play by Play**—For a couple of years there has been loud public debate over what to do with the lower level once the trolleys were gone. One faction, headed by Anthony J. Celebrezze,



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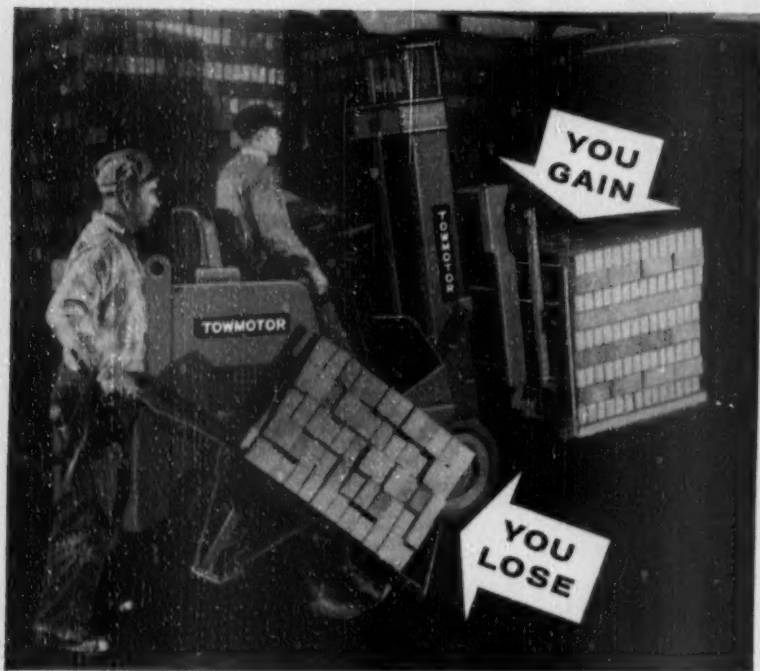
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wanted to pave it to accommodate two more lanes of traffic. The other, headed by County Engineer Albert S. Porter, was volubly opposed on grounds of both cost and safety. The issue was a big one in last fall's mayoralty campaign, in which Celebrezze, an underdog, beat two other men including Porter, the Democratic machine candidate.

Immediately after inauguration, Celebrezze initiated plans for a \$500,000 repaving project, and got the backing of the Cuyahoga County Commissioners. But all such projects in the county must, by law, be approved by the County Engineer—who is still Albert Porter. And last week Porter issued a blast at the city's repaving idea, calling it "not safe, not economically sound."

His opposition effectively kills the city's plan. But paving is still alive—because Porter himself, a couple of months back, submitted an alternative paving plan that satisfies his objections on safety grounds. It would cost well over \$1-million. If the commissioners are willing to adopt this plan as is, there's no further problem. But any modifications are still subject to Porter's veto.

## Towers Are Higher, Too

**DALLAS**—The two daily papers here, the News and the Times-Herald, are fiercely competitive. Each owns one of the city's two TV stations—which, therefore, are also fiercely competitive. But business is business.

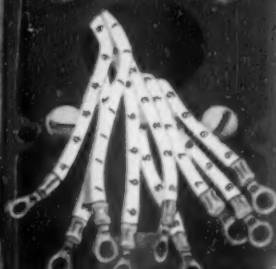
So the two stations have formed a jointly owned subsidiary, Hill Tower, Inc., to erect what is said to be the highest multi-antenna TV tower in the world. The tower, on a hill just south of Dallas, will be 1,438 ft. tall. On top of it will be a platform, and the two stations' antenna will rise 83 ft. from there. This total of 1,521 ft. compares with the 1,472-ft. height of the antennas atop New York's Empire State Building.

## Exit for the El

**NEW YORK CITY**—Two or three decades ago, one of New York's distinguishing characteristics was its elevated railways—no fewer than four of them traversed Manhattan almost from end to end, and spread out into Brooklyn, Queens, and the Bronx. But the noisy, unsightly EIs have gradually been replaced by subways and surface lines; for the past 12 years only the Third Avenue line has remained in Manhattan. Now that, too, is going. Last week Col. Sidney Bingham, general manager of the city's Transit Authority, formally recommended that the line—a heavy money-loser these days—be abandoned by yearend.

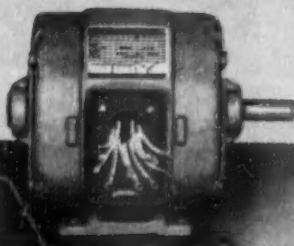
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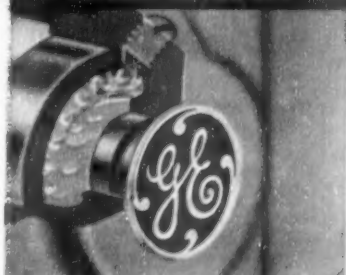
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You save with the new Tri/Clad '55' because wiring is easier and faster. The large, diagonally split conduit box gives you plenty of knuckle room. Leads are perma-numbered . . . you can always identify them instantly.

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General Electric Tri/Clad '55' motors are now available in many ratings. The complete line of 1 to 30 hp a-c motors will be available soon. For full details contact your G-E Apparatus Sales Office or G-E Motor Supplier today. Write for Tri/Clad '55' bulletins GEA-6013—Dripproof motors, GEA-6012—Enclosed motors, GEA-6027—Gear-motors. General Electric Company, Section 648-7, Schenectady 5, N. Y.

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# PERSONAL BUSINESS

BUSINESS WEEK

MAY 15, 1954

A BUSINESS WEEK

SERVICE

There's a good chance that in case of illness in your family your doctor will prescribe hydrocortisone (Compound F). It has turned out to be effective against a long list of diseases, has become a major weapon in medicine's arsenal.

Don't let the idea of using hydrocortisone scare you. The sometimes violent, occasionally fatal side-effects you read about a few years ago came from cortisone, a near relative. Hydrocortisone's side-effects are far milder, less dangerous. Often they can be avoided completely.

If that surprises you, it's because there has been widespread confusion in the public mind between cortisone and Compound F. Growing medical use of the latter makes it important to note the distinction.

The confusion actually started with the scientists. At the time of its discovery in 1948, cortisone was thought to be the principal hormone of the adrenal cortex (covering of the adrenal glands). The assumption was wrong; cortisone is normally not produced by the adrenal cortex. Hydrocortisone is.

Chemically, the two substances are nearly identical. Yet the difference is great enough to have a profound influence on their properties and effects. Medically, the effects heavily favor hydrocortisone, because it is both more potent and more useful than cortisone. For example:

- It can be applied directly to inflamed tissues, thus avoiding cortisone's side-effects completely. Cortisone is not applied directly, except in certain eye inflammations.
- Taken systematically, Compound F has fewer, milder side-effects, yet is more potent; it achieves the same effect with two-thirds the dose.
- It is effective in areas where cortisone is of little value—osteoarthritis (arthritis of old age), mouth inflammations, eye and skin diseases.

Compound F has also been applied to nearly all the disorders treated by cortisone—and with as great or greater success. That includes rheumatoid arthritis, rheumatic fever, asthma, kidney ailments, eye inflammations, blood disorders, and a wide variety of skin diseases.

The last use is one of the most important. The possibility of direct application makes treatment of skin diseases both safer and simpler. A small amount of hydrocortisone in a bland ointment is highly effective in many skin diseases—and can be easily applied by the patient.

One example: poison ivy. An ointment that you can apply will often relieve discomfort in a matter of hours, clear up the condition within a few days. (In one recent experiment, a single injection into the skin suppressed reaction to mosquito bites in the area for four months.)

Expect your doctor to administer any hydrocortisone injections. The only hormone patients commonly inject into themselves is insulin. That's because hormones are powerful elements, nothing for the layman to fool with. Overdosage by injection is a distinct hazard. There's less danger when it is taken by mouth.

Likewise, you can't get a Compound F poison ivy ointment, for example, without a prescription—even though it's hard to overdose yourself

# PERSONAL BUSINESS (Continued)

**BUSINESS WEEK**

**MAY 15, 1954**

with a salve. That caution is a good indication of the potency of hormones.

**Keep your eyes open for further startling advances in the field.** Hydrocortisone is just one of the steroid hormones (sex hormones and those from the adrenal cortex). Potential applications of these steroids promise great advances in longevity, treatment of cancer of the reproductive organs, and treatment of shock—of which many people die.

Meanwhile, right now you no longer have to pay a prohibitive price for either cortisone or hydrocortisone. The price of both is less than one-twentieth of the cost of cortisone four years ago.

—●—  
If there's a big wedding coming up in your family, remember this: **Thieves are avid readers of the social columns.** Valuable wedding presents concentrated in one place are tempting loot.

**You can get insurance to protect against the extraordinary risk of loss of wedding presents by burglary.** It will also cover against loss by fire, transportation, and certain other hazards.

Coverage is written on an all-risks basis for a period before and after the wedding, but not beyond 90 days after it. Location of the presents makes no difference; they are covered anywhere they may be.

You don't have to give a detailed description of the property. However, some articles are excluded—such as animals, automobiles and other conveyances. **You can extend the policy to cover breakage of fragile articles,** such as china, glass, and furniture—at extra cost.

For the average policy the cost runs at \$3.50 per \$100 of the first \$5,000 of coverage. There's a descending scale for higher amounts: For instance, the rate for \$100 of coverage in excess of \$20,000 is \$1.

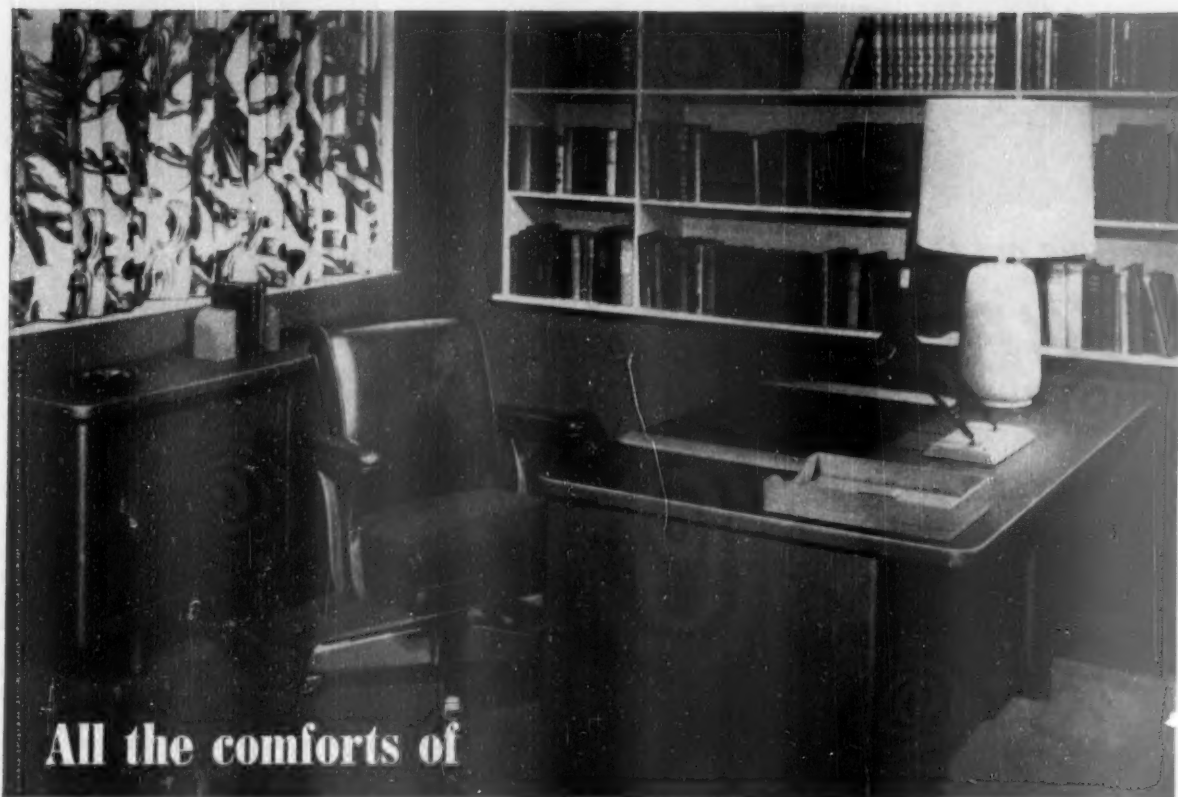
—●—  
**Leisure-time hobbies** are sometimes hard to pursue because it's hard to find books you need on the subject. A new source is *How-to-Do-It Books—a Selected Guide*, by Robert E. Kingery (R. R. Bowker, \$4.50). It contains 3,500 titles, under 900 headings.

**Wild Flowers and How to Grow Them**, by Edwin F. Steffek (Crown, \$3.95) will be published next week. It contains information on how to identify, transplant, and raise more than 350 species.

—●—  
**Note for aircraft owners:** If you're planning to fly into Canada, get a new booklet put out by the Canadian government. Called *Admission of Aircraft to Canada*, it contains rules and regulations, navigation charts, and related information. You can get it from the Canadian Government Travel Bureau, Ottawa.

—●—  
**Watch for a new "blood assurance program"** from your state medical society, which works like this:

You give one pint of blood per year. In return, you are guaranteed four pints each for yourself and immediate family—without cost—in case of need. A pilot plan is being tried out in Genesee County, N. Y., eventually may be nationwide.



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*Photo courtesy of Metal Office Furniture Co., Grand Rapids, Michigan*



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Cushioning  
are good  
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handling ease, and adaptability...

Give me the Polisher-Scrubber with  
**THESE EXTRAS!**

The combination of extras at right not only wins the appreciation of maintenance men, but appeals to thrifty, safety-minded management as well. In operating a 600 Series Finnell, no effort is required to hold the feather-touch safety switch to 'on' position. And the switch works with either hand from either side of handle! When grasp is released, the switch automatically disengages and the machine stops. Brush-propelled, it glides over the floor with virtually effortless guidance. True balance is attained through proper distribution of weight per square inch of brush surface in relation to thrust and brush speed.

+ 2-Way Automatic Feather-Touch Safety Switch. Works from both sides of insulated handle.

+ Combination Worm Gear and V-Belt Drive. Provides extra protection for motor and gears.

+ Center Brush Feed. Eliminates splashing of equipment, furnishings, and mopboards.

+ Truly Balanced and Really Quiet Operation!

+ Dispenser (accessory) for Applying Hot Wax Mechanically. This process reduces frequency of waxing.



A 600 Series Finnell. Four sizes: 13, 15, 18, and 21".

Steel Brush Cover

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Another of the extras offered by Finnell is nation-wide service! There's a Finnell Floor Specialist and Engineer nearby to help train your maintenance operators in the proper use of Finnell Equipment and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 3805 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

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IN ALL  
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CITIES

## CRIME

### Camera Detective

Film system of Houston firm "shoots" swindlers and holdup men, gives store its own rogues' gallery.

Bad check passers aren't doing so well in Houston these days. The man who is putting a crimp in this hitherto flourishing racket is W. F. Wilson, president of Wilson Electric Co. and its subsidiary, Photect, Inc. Wilson has founded a new business on the fact that almost anybody likes to have his picture taken except a thief during his working hours.


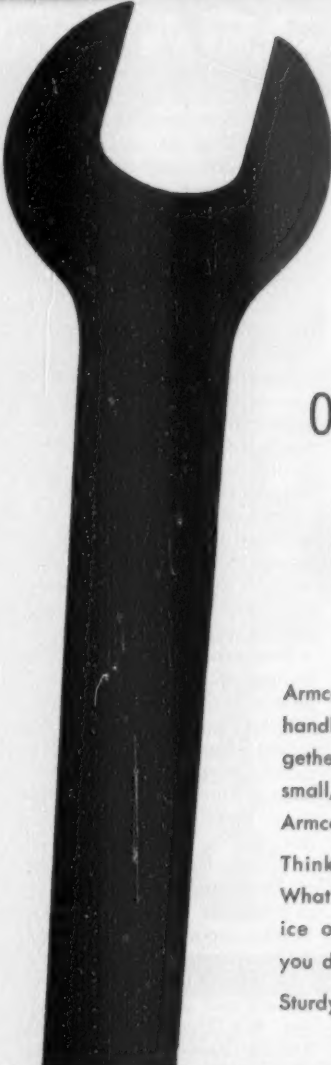
Here's what has been happening in some of the Houston stores that use Wilson's anticrime device. A stranger comes in, makes his purchase, goes to the cashier's counter to cash a check to pay. He starts off brashly enough, but spots a camera lens pointing at him from over the cashier's shoulder, and a sign in front of her reading, "This store is protected by the Photect System of photographic identification." He hesitates a moment, then reaches in his pocket for cash, or mutters, "Oh, I forgot something," and vanishes.

• **Crime Wave**—Hot check passing in recent months has been a serious problem in Houston, especially for supermarkets and variety stores that have to handle a sizable number of checks. One big supermarket chain cashes more than \$20-million a year in checks.

Another big headache for Houston stores has been hijacking and holdups. This affects particularly liquor stores—they are open late and have lots of cash on tap—and drugstores.

Photect, Inc., has developed two separate camera systems to handle these two different criminal tactics. The hot check setup aims both at protection—scaring off the check passer—and detection after the crime. The anti-holdup system is limited to detection by making a complete picture record of what happens and doesn't aim to stop a holdup while it's under way. Photect doesn't want any store clerks to become dead heroes.

• **Camera Eye**—The camera used in both cases is an electrically driven 16-mm. affair that can take 2,000 pictures on a 50-ft. magazine. Because of the double purpose in the hot check setup, this camera is in plain view. Every time a check is cashed, the cashier shoots off the camera by pushing a button. The camera snaps the check-casher together with a special mounting



## HOW TO TIGHTEN UP ON CONSTRUCTION COSTS



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Armco Steel Buildings come in easy-to-handle panels that are quickly locked together, then bolted top and bottom. A small, inexperienced crew can erect an Armco Building in a surprisingly short time.

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An Armco Steel Building like this office-warehouse could be erected by a small crew in a few days' time after the foundation has been laid. This would include installation of doors and windows.



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that shows date, time, and a serial number. The cashier also jots down this number on the check as she initials it.

The hijack or holdup camera system, on the other hand, is as inconspicuous as possible so as not to incite holdup men to manslaughter. The camera is set up to cover the entrance and main counter, in a soundproof box so no one can even hear it operate. A clerk can set it off by touching a concealed rubber cord, or it can be tied into an alarm system. Once started, the camera will take two pictures a second until it's stopped.

Some stores set off the camera whenever an unknown customer comes in at night. But pictures are not usually developed unless something happens or—in the hot check system—until a check bounces.

Photect units have been in operation for two months in a number of Houston stores. So far, they haven't caught anyone. But to Wilson's knowledge, no bad checks have been passed in that time in stores using the system.

• **Business**—Right now, Photect is leasing its hijack units for \$7.50 a month and hot check units for \$10. Wilson uses a special camera he designed himself; the only standard camera parts it has are the lens and magazines. It can be geared to two shots a second, or as slow as one a minute.

Rental charges don't include the cost of developing; that is extra. So far, the cameras are doing well in Houston, Wilson reports.

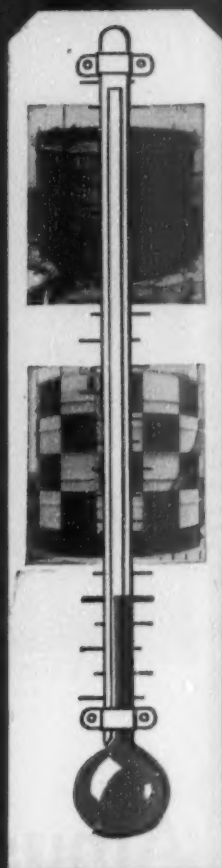
Of course, there's nothing to stop a storekeeper from buying a 16-mm. camera and setting up a unit for himself. But Wilson points out that regular 16-mm. cameras geared to take single shots as in the hot check setup cost much more than the entire Photect unit—and the storekeeper would have to add various controls and switches.

Photect is operating up to now only in the Houston area, but plans to set up franchised dealers elsewhere who would buy the units and rent them to customers. It hasn't ruled out direct customer sales, either.

• **Competition?**—Photect appears to be the first to get on the market with an anticrime camera; but stickups and bad checks are universal. In Los Angeles, a Technicolor photographer, Walter Greene, has been working on a similar project with Loren Ryder, Paramount Pictures engineer. Green started out with the idea of a camera that would automatically shoot a still picture in a store or bank every three seconds; this would give 20 pictures of a holdup that lasted only a minute. He also was looking for a film that would automatically erase itself every couple of hours, but found a permanent paper film was just as cheap.



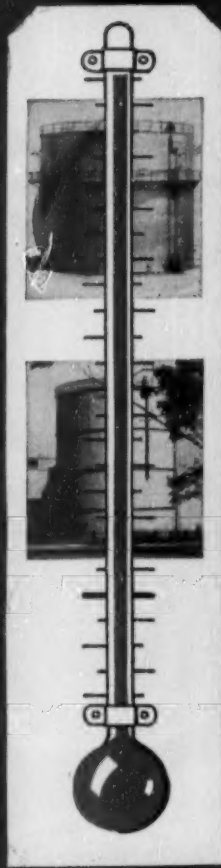
from the **ARCTIC** to the **TROPICS**



more than

**130**

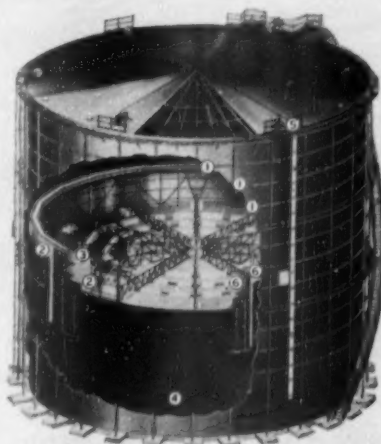
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This 100% dry seal gasholder (no water, no tar, no grease) has proved itself under every condition of climate and temperature. Because of the seal and the simple operating mechanism, operating costs have been entirely eliminated. Comparison of maintenance expense by owners of Wiggins gasholders also shows remarkable savings. Companies who have converted old-type gasholders to the Wiggins advantages have been able to enjoy similar savings. Write for information.

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Long before Cincinnati's Coney Island opened this season, the roller coaster set was peering over the fence, seeking a preview of the amusement park's new "thrillers." Preparations for the opening started way back in August, when Edward L. Schott, president of the company that operates Coney, told his department heads that it was time to write their annual letters to Santa Claus. Actually, these letters interweave plans for keeping the amusement park in top shape with dreams of new features to keep the customers coming—and spending.

182



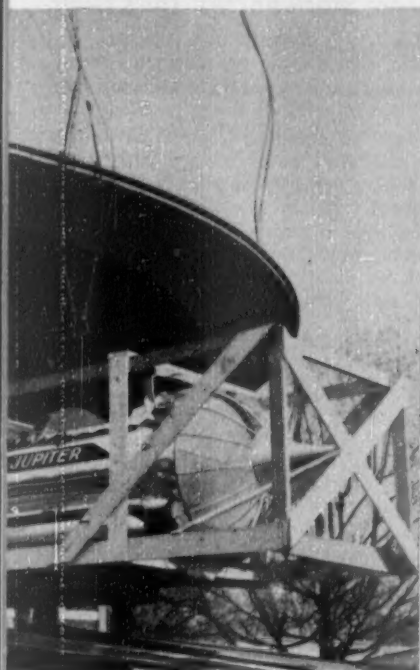
SPACE SHIPS take off from bases form

## Amusement p



EAGER CUSTOMERS jump the gun,

BUSINESS WEEK • May 15, 1954

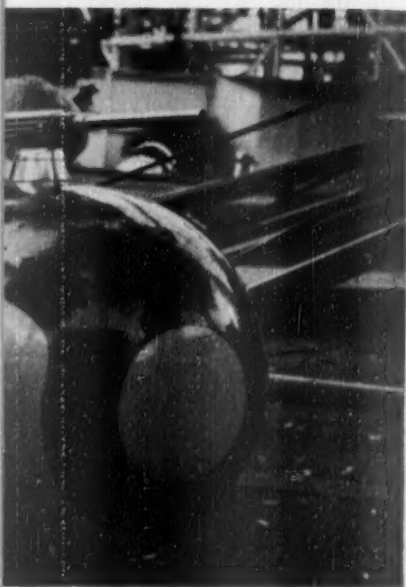


eld by the extinct jet rocket . . .



ELECTRIC CARS get primed for the beating they'll take the first warm weekend.

## n Parks Unveil Their Winter's Work



at one of the main attractions in Land of Oz.

In January 1937, the merry-go-round horses at Cincinnati's Coney Island came unglued. Disembodied heads were everywhere; ears meshed with tangled tails; there wasn't a four-legged steed in the amusement park's stable.

Coney Island had been flooded before, many times. It's on the eastern edge of Cincinnati on the bank of the temperamental Ohio River. But the oldest inhabitants had never seen anything like this.

In Moonlite Gardens, the hardwood dance floor—piled with tables and chairs for winter storage—rose like a huge raft. Just upstream, at River Downs race track, barns were swept downstream and deposited on top of Coney. When it was all over, the devastation was complete.

Out of this debris, owner Edward L. Schott and his staff started to rebuild Coney. Today, they call it "America's Finest Amusement Park," and people in the highly competitive amusement field hardly ever talk back.

• **Big Business**—"All my friends seem

to think I just lock the front gate after Labor Day and then unlock it again next May," says Edward L. Schott, president of Coney Island, Inc., which runs the park. "And it just isn't so. We keep right on working, getting ready for the next season."

Getting ready for the throngs of people who annually feel the urge to ride the roller coasters and dribble hot dog mustard on their ties is a lot more than a maintenance-repair job. An amusement park is a combination of businesses. It has rides, games, picnic grounds, refreshment stands—Coney visitors consume 30 miles of hot dogs each season—dance halls, roller skating rinks, restaurants, maybe even a race track. The over-all attendance at these parks—exclusive of kiddielands and places like New York's gigantic seaside Coney Island—is probably around 250-million a year. Gross receipts just to get into a park can run anywhere from \$100,000 to \$2-million a season.

• **Counting the Dollar**—Despite increased costs covering everything from





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"...when he finished there were more horses' tails than heads..."

AMUSEMENT PARKS starts on p. 182

wages to equipment, prices at amusement parks have changed little since 1940. Operators have kept their heads above water by dreaming up new promotions. Almost all parks feature outdoor attractions, which are usually free circus-type acts; contests—bathing beauty, baby crawling, dance, etc.; and "learn to swim" campaigns for those having beaches or pools.

At Coney, Schott counts on combining a country club atmosphere plus the standard lures of the amusement park to keep them coming—and spending. This year, he put a new facade on the penny arcade, and put in a bigger miniature golf course. He re-did the interior of the club house in a modernistic color scheme. As a concession to the small fry, the cars on last year's jet rocket ride have been replaced with space ships (oldtimers can remember when they used to be biplanes).

Schott figures that visitors at his park spend an average of \$2 per head, which grossed him a little over \$2-million last year.

• **For All Ages**—In running Coney, Schott follows a theory of balance: something of interest for everybody. There is the Land of Oz, with little rides for little kids. There are more exciting rides and games for bigger kids and adults. There is Moonlite Gardens, for dancing and romancing. And for oldsters, there is miniature golf. The new course is four times larger than the old nine-hole course, and can handle 200 players per hour.

During the summer peak Coney employs between 500 and 600. At mid-winter low point, there are usually about 40 on the payroll. Many of the summer workers are school teachers or housewives. The park takes on extra workers for weekends and holidays, when the traffic is heaviest. On big days, like the Fourth of July, "we can't take the money fast enough," says Schott.

• **Humble Start**—Coney Island apparently started as a picnic grove, probably before the Civil War. In 1923, Coney Island, Inc., was formed, with George F. Schott, a former shoe retailer, as president.

George Schott died in 1935, and it was his son, Edward, who had the job of bringing the park back after the 1937 flood. "We rebuilt with steel," says Ed. "The things can't get away now. The dance floor is secured."

One of Schott's favorite stories concerns the merry-go-round horses that came apart during the flood. The

wooden-horse repairman got a batch of big baskets and started sorting—heads here, tails there, etc. Those who were there will swear on a stack of Bibles that when he finished sorting, there were more horses' tails than heads.

• **Streamlining the Park**—Schott took on the company presidency at the age of 28—the youngest operator of a major amusement park in the country. Now 47, he stands well over 6 ft., weighs about 200 lb., and looks 10 years younger than he actually is.

When he set out to rebuild the park, he insisted on good taste and design, and his customers appear to be flattered by the whole thing. Skeptics hooted when he decided to do Moonlite Gardens in French colonial, complete with wrought-iron railing. But the public went for it. He emphasizes the need for cleanliness and neatness at the park, and the patrons react to it. "They even put paper in trash cans, and sometimes bottles in bottle racks," says Schott.

Schott studied commerce at the State University of Iowa, but worked at Coney during the summers. He did a lot of things—worked at the gate, handed out towels at the pool. When his children were little, he tested their reaction to certain rides. If the ride left the girls cold, Ed figured there was something wrong with the ride. Now he watches their reactions to dance bands.

• **In Demand**—Proof of Schott's stature in the amusement park field is the fact that he has been called to California to act as consultant in the planning of the big new Walt Disney amusement park.

Disneyland, a \$9-million project, will take form on a 160-acre tract on an unincorporated area on the border of Anaheim and adjoining the Santa Ana Freeway. It is scheduled to open in midsummer, 1955. It will be divided into different areas, which will be known as True-Life Adventure Land, the Land of Tomorrow, Frontier Land, Fantasy Land, Recreation Land, and Holiday Land. Presumably all will get the full Disney treatment, with Mickey Mouse, Donald Duck, Snow White, Pinocchio, Peter Pan all out in full force.

Disney's entry into the amusement field race caused quite a stir in the industry. According to Paul Huedepohl, executive secretary of the National Assn. of Amusement Parks, Pools & Beaches, there hasn't been an outstanding new park built in 25 years. At present, there are about 600 big parks in the U.S., of which perhaps 400 really justify the name; the rest are big picnic grounds with a few rides on the side. (This is exclusive of kiddielands, which outnumber amusement parks 3-to-1, and are a relatively recent phenomenon.)

• **Promotion Piece**—Amusement parks



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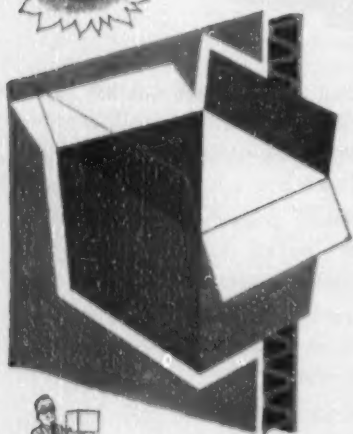
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OAKLAND  
PIEDMONT  
PLEASANTON  
SAN LEANDRO  
RURAL ALAMEDA COUNTY

"... only well established operators have the money to develop new rides..."

AMUSEMENT PARKS starts on p. 182

got their big push 50-odd years ago, when transit companies built them out at the end of trolley lines. It was a nice way to get people to ride the trolleys in the pre-auto days, and to cash in on the public's yen for entertainment. But from the early 1900s on, the mortality rate was terrific. From a peak of about 1,500, the number shrank to 400 (big parks) in the late 1930s.

Today, transit companies are practically out of the picture. There are a few city-, county-, and state-owned parks, but the great bulk is individually owned. Not more than a handful of people own more than one park either. And the business has developed into a family affair, with son succeeding father—sometimes even unto the third generation.

There are a lot of good reasons for that. For one thing, the season runs only 90 to 150 days a year, with the average around 125. But a rainy Fourth of July and Labor Day weekend can shoot one season's profits all to blazes. Only a veteran who knows all the tricks of the trade can get around that one.

Another rug-puller is the fact that most operators figure on spending about 10% of their gate receipts annually on maintenance, refurbishing, streamlining. That cuts into the profits.

Then there's the problem of the "rides." Costs of these have soared terrifically. It's not uncommon for them to cost \$35,000, or more. Only well established operators have the money—or the credit—to develop new types of rides.

• More Than Meets the Eye—But there's more to running an amusement park than knowing how to juggle finances, Schott insists. For example, at Coney—like every other amusement park in the world—there's frequently a lost-child problem. The urchin is brought to the park office, and a search gets under way for the parents. Meanwhile, the office staff insists that the child is not lost, but the parents are. The approach is said to work wonders in quieting lost children.

And a related problem can be tough for the uninitiated. As Schott puts it, "Keeping up with current and fashionable juvenile euphemisms for powder room is an important part of the amusement business."

It's one of the things, apparently, that embryonic amusement park operators can learn only at grandfather's knee.



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**BUSINESS WEEK**

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# INDUSTRIES



GARDINER SYMONDS of Tennessee Gas is squaring off for a pipeline battle with . . .

## Big Prize: Growth in

The two men pictured above are captains for two of the country's biggest gas pipeline companies in a tug of war for the rich New York metropolitan area. Gardiner Symonds of Tennessee Gas Transmission Co. (above) seeks to compete in this market with Tom P. Walker (above, right) of Transcontinental Gas Pipe Line Corp., the present supplier.

Both companies have applied to the Federal Power Commission for the right to bring additional gas into the New York market. They're talking in terms of 90-million cu. ft. a day, which would be an increase of about 26% over present daily demand.

FPC is hearing arguments on Tennessee's application, which was filed in December. Next will come arguments on Transco's petition, filed in February. No decision is expected before summer, though Nov. 1, 1955, is the target date for the new deliveries to start.

• **Demand Is Assured**—There's no question about the salability of additional gas. Besides the increasing demand from industry in New York and northern New Jersey, there's a steady rise in use of gas as fuel for home heating. According to one estimate, the number of customers for space heating in the New York area will double by 1957.

• **As It Stands**—Right now, Transcontinental is the sole supplier to four of New York City's five boroughs (Texas

Eastern Transmission Corp. supplies Staten Island, which is the Borough of Richmond), Long Island, and Westchester County. It shares the New Jersey and Philadelphia markets with Texas Eastern on friendly terms—the two companies are partners in developing an underground storage field at Oakford, Pa., near Pittsburgh.

Tennessee now approaches the New York metropolitan area only through a spur of its subsidiary, Northeastern Gas Transmission Co. Its main line enters New York State near Buffalo and continues straight east to the Massachusetts line, where it feeds Northeastern. The subsidiary has a line that curves down to Greenwich, Conn., under terms of settlement of last year's fight for the New England market (BW—Jul. 11 '53, p. 28).

Tennessee is developing a storage field near Hebron, in north-central Pennsylvania, and it wants to run a 243-mi. line from there to Greenwich. This direct route would cross New York's northern suburbs.

• **Proposals**—Tennessee estimates cost of its new pipeline at \$33-million, while Transcontinental proposes to spend \$53-million to install parallel sections along its present route. However, Transco's president Walker says his company can still supply gas cheaper to the New York customers.

Walker says, too, that Transcon-



TOM WALKER of Transco for a . . .

## New York

tinental has the shortest line from Texas to the New York region. The pipe was built four years ago with the New York market in mind, though it also serves the Carolinas, Delaware, Pennsylvania, and southern New Jersey.

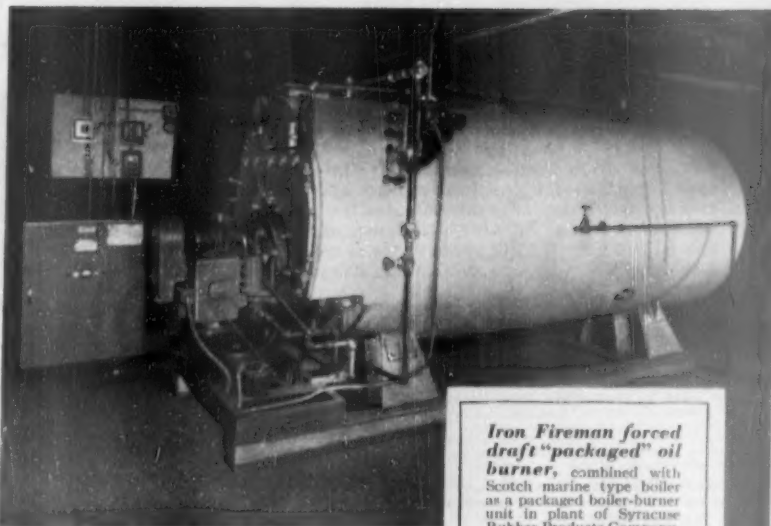
On the other hand, Tennessee claims advantages for a direct connection from its Pennsylvania storage field to the Greenwich terminus of Northeastern Gas—and for an alternate source for New York City and north Jersey.

• **Arguments**—The FPC hearings are getting testimony from other interests as well as the two companies directly involved. Intervenor in the case include the coal interests—which make a point of opposing every extension of natural gas service—and the marketing companies.

The New York City marketing companies, which buy gas now from Transco and distribute it through an interconnected system, have come out in favor of Tennessee.

Besides, Brooklyn Union Gas Co. told FPC that it had been trying for four years to persuade Transco to boost its gas deliveries and that Transco had said an expansion was uneconomical and not feasible. An official of Consolidated Edison Co. was recently quoted as saying that Transco had a "dog in manger" attitude toward more gas for New York City.

These two utilities, plus Public



Installation by R. C. Drees, Goshen, Ind.

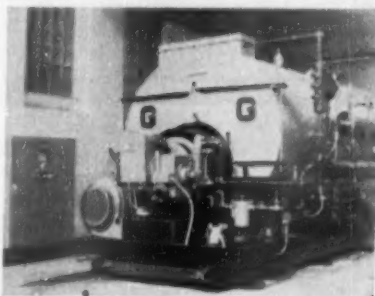
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Service Electric & Gas Co. of New Jersey and Long Island Lighting Co., said they signed agreements with Tennessee only after they had been unable to get additional gas from Transco. Con Ed and Public Service have each agreed to take 30-million cu. ft. a day, Brooklyn Union 25-million cu. ft., and Long Island Lighting 5-million cu. ft.

• **Counterclaims**—Transco's president Tom Walker argues that expansion of his company's facilities would be more efficient and economical than construction of a wholly new line by Tennessee. He says gas transmission is not a competitive but a regulated business.

Walker sees no parallel with the split of the New England market between Northeastern Gas and Algonquin Gas Transmission Co. The New York City market, he says, is indivisible because the distribution systems of the marketing utilities are interconnected. He also argues that his company can begin deliveries sooner than Tennessee.

Gardiner Symonds attacks the argument that the New York area is all one market that should belong to Transco. There's nothing in the Natural Gas Act that says pipelines should be given captive markets, he declares. Many areas now are served by competitive pipelines, he adds.

Texas Eastern, which shares some of the Philadelphia and New Jersey markets with Transcontinental, is sitting on the sidelines, saying nothing. It has a stake, however, for Tennessee is already eyeing the possibility of delivering some 30-million cu. ft. a day to Philadelphia utilities.

• **Comparative Growth**—The two battling companies have grown since the war along entirely different policy lines.

Transcontinental was built in 1950 to bring Gulf gas to New York. After a flying start, it sat on its hands. A year ago, Claude Williams, one of its founders, resigned, and Walker took over. The company was bedeviled by a dragged-out rate case and by some disadvantageous gas contracts, chiefly in Louisiana. These have been settled.

Last year, Transcontinental grossed \$59-million, netted \$7.7 million. It has 1,832 mi. of pipeline and a daily capacity of 527-million cu. ft. of gas, with reserves of 4.13-trillion cu. ft. and a plant worth \$246-million.

Tennessee was organized in 1943 to build a pipeline from Agua Dulce, Tex., to Clendenin, W. Va. It has expanded aggressively.

Besides the Appalachian region, its system now serves upstate New York, New England, and—soon—Canada. Last year the company grossed \$133-million, netted \$18.9-million. It has 7,277 mi. of pipeline and a daily capacity of 1.5-billion cu. ft., with 12-trillion cu. ft. of reserves and a plant worth \$621-million.

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## Coming Back Toward Balance

Last year, when U. S. economists realized that we were heading into a business recession, few of them got upset about it. The dip, as they saw it, was going to be a gentle one. There was nothing to suggest that we were due for another 1929 or even another 1937.

But European economists, working with the same set of facts, developed a bad case of nerves. When America sneezed, so the catch phrase went, Europe got pneumonia. Even a mild setback in American business would start a crushing contraction in the rest of the world. Some of the comment sounded rather like the remarks of a long-suffering wife who sees her breadwinner headed for the saloon on payday. America could perhaps afford the luxury of a recession, but what would become of its poor dependents?

In Paris last week, a distinguished group of European economists reported—a little shamefacedly—that the poor dependents had done very well indeed. In a study submitted to the council of the Organization for European Economic Cooperation, this group concluded that the "reorganization" in U. S. business seemed to be just about over—and that the rest of the world had scarcely known that it was happening. In fact, while U. S. production was slipping, European countries generally were increasing their industrial output.

This is good news from every standpoint. It is evidence that the strenuous U. S. efforts to build up European economies have finally started to pay off. It is proof that the U. S. does not have to maintain a roaring inflation at home to promote stability abroad. And it is a sign that little by little the rest of the Western world is developing economic strength and stability.

The record of the past year looks particularly good when you compare it with 1949. Then, a mild dip in the U. S. touched off a real economic crisis in Europe.

Obviously, it would be foolish to draw too many happy conclusions from the record of the past year. So far at least, the U. S. recession hasn't been severe enough to put any real strain on international trade. If the drop had been faster and deeper, the economists might have had a different story to tell in Paris last week. Nevertheless, we can enjoy the news for what it is worth—as a sign that we are on the right track, as evidence that the gradual return to free markets and the gradual buildup of Europe's industry are bringing the Western world back into balance.

## TV and the Hearings

The American people have always believed that controversies over public affairs are everybody's business, but the slow-moving, televised proceedings of the Army-McCarthy affair have raised the question as to how far we should carry the public hearing principle.

There is no simple answer. Under the principles of absolute democracy—that is, something approaching the New England town meeting—the answer would be that even the hearings are not enough, that congressional sessions should also be televised. But under the more limited, representative democracy we actually have, the hearings are already involving the people in the operations of their government more than ever before.

This may be good for democracy, or, because of the loss of efficiency, it may be bad.

Many people have been quick to blame television for the slow progress the Senate committee has made. Because of television, they say, there has been too much emphasis on sideshow antics to impress the televising public and too little emphasis on clear logic to impress the committee that sits in judgment.

But is television the rightful whipping boy? Is it not, perhaps, the fault of the quasi-judicial nature of the hearings, the lack of a firm structure of rules, and the nature of some of the participants?

In developing television, we have provided ourselves with a political medium of certainly immense, but still unmeasured, potential. Used properly, television can do much in the name of democracy and justice. It can also further an existing trend in this country toward greater participation of the people in the government: a trend that has come about through broader suffrage, direct election of senators, and like reforms.

It appears likely, therefore, that it will be the investigators who will have to change their procedures and find ways to do their business fairly and efficiently under public scrutiny. The public has already laid claim to its right not only to read about and to listen to what is going on, but to watch it, as well.

## The Human Robot

"The true science and the true study of man is man." So said Pierre Charron before 1600. But for centuries before him, and ever since, philosophers have been trying to define what man is. This week a test pilot added a definition that we think is something of a classic.

It came at a meeting of air scientists and pilots, an advisory group to the North Atlantic Treaty Organization. In the course of the debate, as reported by the New York Times, the scientists made it clear that they would like to replace the pilot in the aircraft with instruments and servo-mechanisms. Scott Crossfield, a U. S. pilot who has flown the Douglas Skyrocket at 1,327 mph., rejoined by asking:

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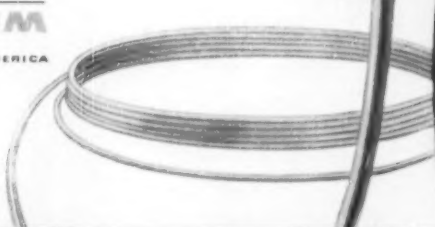
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